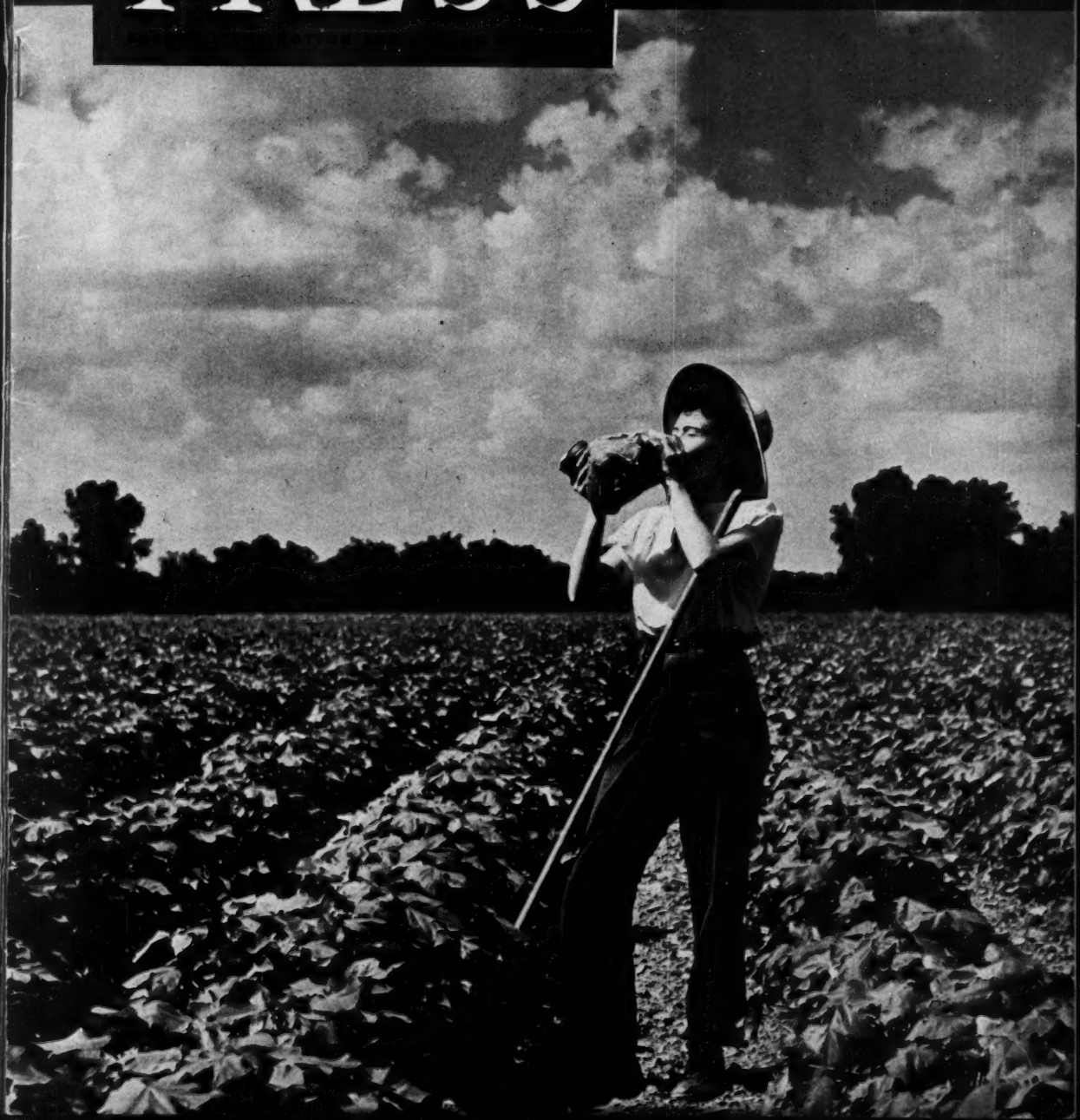
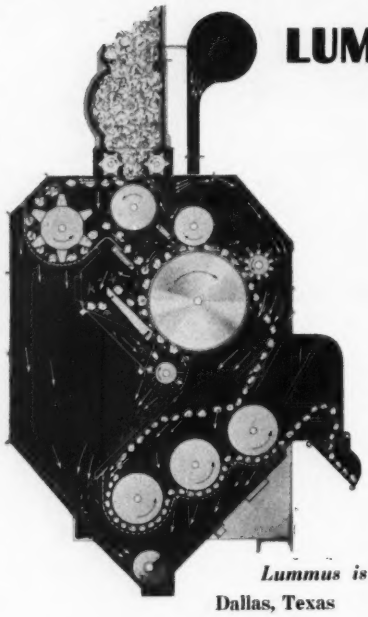
PRESS

52nd YEAR





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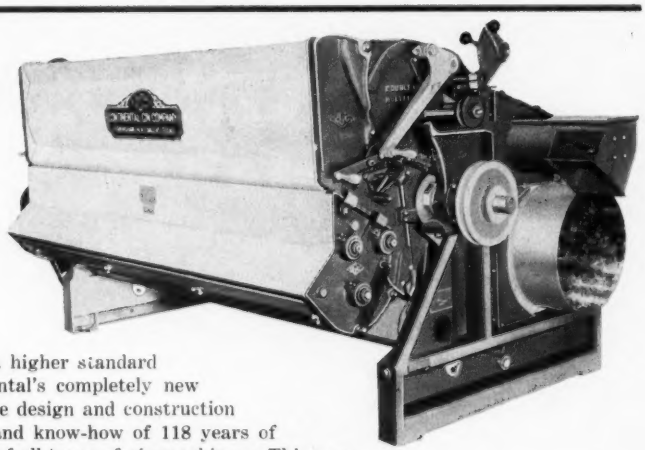

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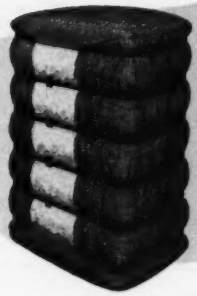
took its first step with cotton ties



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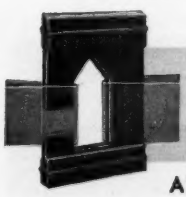

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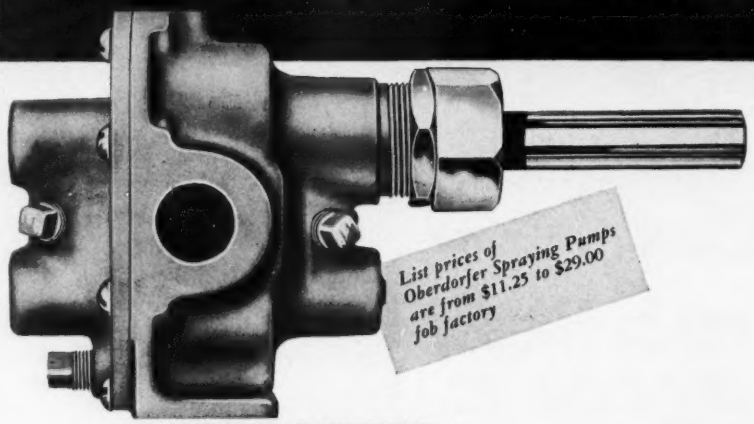
SOY BEANS



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SWIFT & COMPANY

THE COTTON GIN AND OIL MILL

PRESS

52ND YEAR

THE MAGAZINE OF THE COTTON GINNING AND OILSEED PROCESSING INDUSTRIES

Volume 52 **May 26, 1951** **Number 11**

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The Cotton Gin and Oil Mill Press *is the Official Magazine of the foregoing associations for official communications and news releases, but the associations are in no way responsible for the editorial expressions or policies contained herein.*

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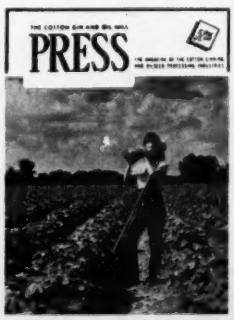
Executive and Editorial Offices: 3116 Commerce St., Dallas 1, Texas

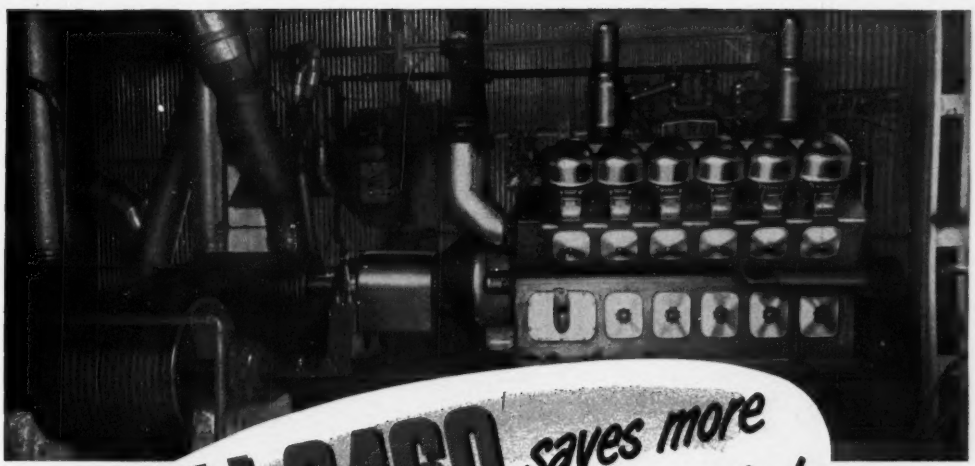
The Cover

HOEING COTTON, a little job we used to do now and then many years ago, never quite measured up to our idea of a comfortable way to make a living. Yet, looking at the picture on the cover of this issue, we are persuaded that we might modify that idea—provided, of course, we could go up and down those seemingly endless rows with such an attractive companion and, perhaps, slake our thirst from the same water jug.

Photo by Bob Taylor

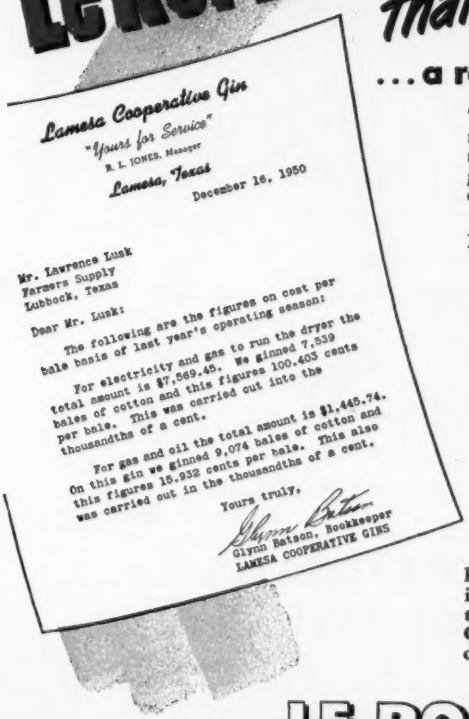


A PROGRESSIVE AND RESPONSIVE PUBLICATION
READ BY COTTON GINNERS, COTTONSEED CRUSHERS AND OTHER OILSEED PROCESSORS FROM CALIFORNIA TO THE CAROLINAS



Le Roi L-3460 saves more than 84¢ per bale

. . . a report from Lamesa, Texas Gin



Lamesa Cooperative Gin
"Yours for Service"
R. L. JONES, Manager
Lamesa, Texas

December 16, 1950

Mr. Lawrence Lusk
Farmers Supply
Lubbock, Texas

Dear Mr. Lusk:

The following are the figures on cost per bale basis of last year's operating season:

For electricity and gas to run the dryer the total amount is $7,569.45. We ginned 7,539 bales of cotton and this figures 100.405 cents per bale. This was carried out into the thousandths of a cent.

For gas and oil the total amount is $1,445.74. On this gin we ginned 9,074 bales of cotton and this figures 15.932 cents per bale. This also was carried out in the thousandths of a cent.

Yours truly,

Glynn Batson

Glynn Batson, Bookkeeper
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This letter from Mr. Batson is proof of the big savings you make, when you use economical Le Roi engines. Savings that arise from operation on low-cost, clean-burning natural gas, butane, or propane — savings in the form of lower fuel, oil, and maintenance costs.

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THE SINKERS CORPORATION
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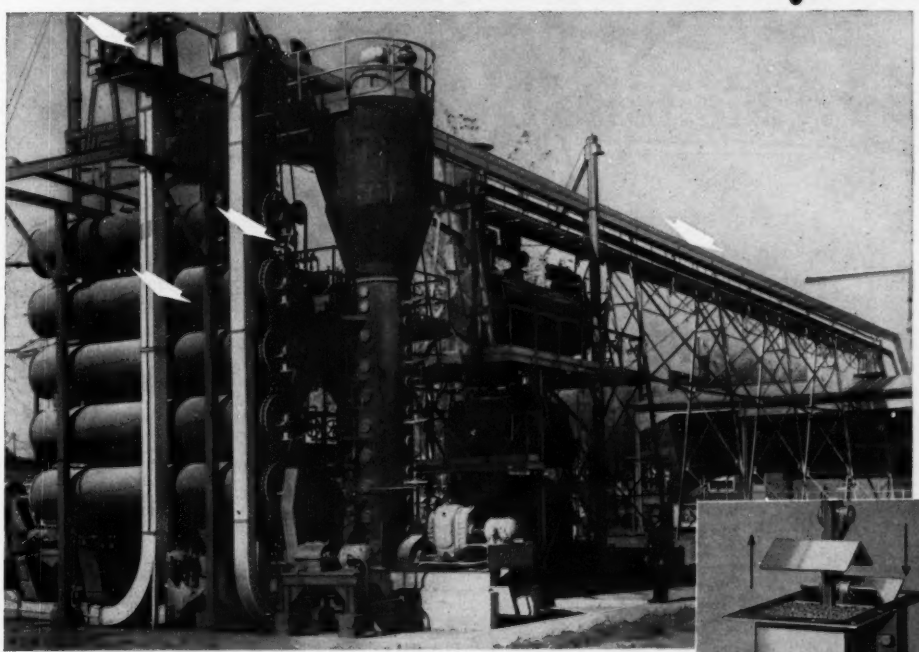
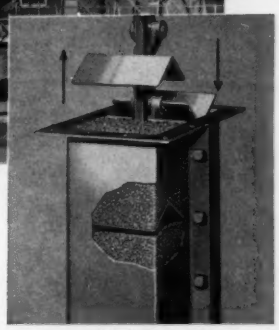
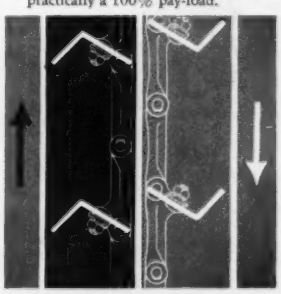


Link-Belt Bulk-Flo Conveyors (indicated by arrows) at Delphos Grain & Soya Products Co., furnished to The V. D. Anderson Co., as part of contract for complete oil extraction unit.



Cutaway of Bulk-Flo vertical run shows material conveyed safely in series of compartments—carrying practically a 100% pay-load.



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safe, gentle handling
self-loading to capacity

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Some Observations on the Economic Aspects Of Ginning Operations

By JOHN E. ROSS, Jr.

■ THE AUTHOR, who is agricultural economist at the Stoneville (Miss.) Laboratory, Research and Testing Division, Cotton Branch, USDA, presented the accompanying paper at the annual meeting of the Tennessee Cotton Ginners' Association, held May 4 at Jackson, Tennessee.

IT MAY APPEAR paradoxical to find that cotton ginners of Tennessee are here today to discuss the results of research on ginning which point the way toward improved cotton quality, while being faced with such problems as curtailment of the manufacture of gin machinery, a plea for a 60-percent increase in cotton production in 1951, uncertain supplies of fertilizer and insecticides, a ceiling on ginning rates, and labor shortages on the farm. In addition, we find ourselves in a situation where the supply of and demand for cotton are such that premiums for the higher grades in 1950 were wider than during previous years and the discounts for the lower grades were considerably narrower. Both the producer and ginner are wondering what the outlook is for the future.

It may be well to examine briefly some of the possible alternatives which ginners are thinking about in their operations for 1951. One approach might be to think in terms of building new gins or modernizing existing installations to provide the best possible service in future years. Another approach might be the opposite, that is, to do nothing. Another alternative might be the addition of a cleaner, a drier, lint cleaners, or the new 90-saw gin stand with the improved overhead moting device. However, it is probable that the one basic thought in the mind of all ginners revolves around this question, "How can I provide the best possible service to producers consistent with the lowest possible cost to me as a ginner?" Thus, the problems become those of a business enterprise with the thoughts of all concerned centered on efficiency of operation and how best to attain such efficiencies, which are essential to the successful operation of any business.

The fact that the ginning enterprise is now regarded as a business institution is evidenced by the capital investment required to install a modern gin. During the last 10 years, along with the increased machinery requirements now deemed necessary to dry and clean cotton, there has been a significant increase in prices paid by all concerned, and gin machinery prices have proved to be no exception to this trend. We frequently find that the capital outlay required is in excess of $100,000, as compared with $30,000 or less in the late 1930's. The owner of a modern gin, therefore, finds an initial charge of $10,000 or more assessed for depreciation and interest on investment before a bale of cotton is ginned. In addition, the modern gin often finds its competition to be with plants which are older, not so well equipped, and either depreciated off the books or having relatively small fixed costs, and capable of performing an effective job of ginning clean, dry, hand-picked cotton, which comes to gins in the middle of the season when the bulk of the crop is ginned. It is then that efficiency of operation is of great significance if competition is to be met and modern gins are to remain solvent and at the same time be available for processing late-season roughly harvested cotton.

Efficient operation as herein discussed relates to the judicious selection and operation of drying, cleaning, and extracting equipment; the employment, training and utilization of a competent labor force; the choice and use of fuel for power and for drying; and the use of an accounting system which permits the gin owner to determine very quickly the extent of profit or loss attributable to any one of the allied enterprises associated with the business of ginning, the cost of providing each of the services associated with the gin, and the relation of the cost of providing these services with respect to the charges made by the gin for such services. Too often in the past the ginning industry has relied on profits from allied enterprises, such as the purchase and sale of cottonseed, to produce a profit for the business, relying on gin charges to pay the costs. When new gins are installed in these days, the increased costs of operation are such that, in association with widely fluctuating cottonseed quality resulting from weather conditions, little, if any, net income from this transaction can be realized. Thus, it may readily be seen that it is of the utmost importance to ginners to maintain adequate records in order that they may determine their ginning charges which will produce a fair return on the capital invested, reflect the quality of service rendered to the producer, and thus remove the speculative effect of certain associated enterprises from the ginning business.

Efficient Ginning Practices Result in Better Quality Ginning Services and Increased Income

The installation of drying, cleaning, and extracting machinery and the efficient use of such equipment exerts a significant influence on the cost structure of a modern gin. As previously indicated, such fixed items of expense as depreciation and interest constitute a considerable proportion of total expense. Any decision to add equipment to existing installations should be made in the light of the effect of such machinery on cotton quality, on the cost structure, and on the increased volume of cotton which the gin will handle as a result of such installations. However, there are other items of expense which influence ginning costs in a most significant manner. These items include labor and fuel for power and drying, the efficient use of which can mean the difference between profit and loss for any gin. For instance, an average of about 3 hours of labor is required per bale of cotton ginned, but for modern gins the labor requirement per bale ranges from about 2 man-hours up to as much as 5 hours. Thus, where average wages are 60 cents per hour, the inefficient use of labor results in excess labor costs of well over one dollar per bale.

The type of fuel used for power and for drying operations also has a significant effect on costs of operation. All ginners should be thoroughly familiar with rates and minimum usage requirements of different utility companies before making decisions on the type of fuel to be employed. In some areas of the far West and in the Tennessee Valley area, electric rates and demand requirements

Table 1.—Estimated distribution of power load and fuel costs per bale at gins with and without lint cleaners in the Yazoo-Mississippi Delta area, by type of operation, season 1949-50.

Type of operation	Proportion of power used at—[1]		Fuel cost per bale at—	
	Gins with lint cleaners	Gins without lint cleaners	Gins with lint cleaners	Gins without lint cleaners
	Percent	Percent	Dollars	Dollars
Unloading	12	13	$0.09	$0.08
Drying [2]	21	25	.51	.55
Cleaning and extracting	19	22	.15	.13
Gin stand operation	16	18	.12	.10
Seed handling	8	8	.06	.05
Trash disposal	5	7	.04	.04
Condenser, tramper, and press	6	7	.05	.04
Lint cleaning	13	—	.11	—
Total	100	100	1.13	.99

[1] Bennett, Charles A., CLEANING COTTON AT GINS. The Cotton Gin and Oil Mill Press, Vol. 52, No. 4, Feb. 17, 1951.
[2] Based on fuel required for power and heat.

are sufficiently low that, when associated with high volumes, economical power charges result from the use of this type of power. Modern gins in the Yazoo-Mississippi Delta consume from 50 to 65 kilowatt hours per bale at a cost ranging from $1.20 to $1.90, depending on the type of installation and the source of electricity. Butane consumption averages from 15 to 20 gallons per bale for all purposes, with drying accounting for approximately 2 gallons per heater per bale. Thus, at a cost of 10 cents per gallon, the average cost of drying for a plant equipped with 2 heaters would approximate 40 cents per bale for drier heat alone. Natural gas consumption approximates 1,000 cubic feet per bale for all purposes at a cost of about 50 cents, of which one-third may be assessed for drying. Again, however, minimum requirements in natural gas rates specify the amount that has to be used in order to obtain the cheapest rate, which amounts to about one-third of the cost of the initial unit in the graduated scale of rates. Therefore, the degree of economy which is achieved in the use of either natural gas or electricity is dependent upon continuous ginning. Diesel fuel also is a relatively cheap source of power in modern gins. Approximately 3 gallons of fuel per bale are required for power, and an additional 10 cents per bale for oil and grease for diesel engines as well as the gas-burning types.

From the standpoint of costs and returns, it might be well to examine briefly the new types of cleaning machinery which have made their appearance in recent years either as supplements to or as substitutes for existing equipment. For instance, it has been found in laboratory tests and field studies that lint cleaners provide a very effective method of removing small leaf trash without impairment of inherent fiber and spinning properties. These tests indicated that it may be advisable to substitute this machinery for some of the very elaborate overhead drying and cleaning machinery now being installed in modern gins. For instance, in the Yazoo-Mississippi Delta area in 1949, gins equipped with lint cleaners produced cotton having higher grades than did gins not so equipped, even though these latter plants operated more heaters at higher drying air temperatures than did the lint cleaner outfits, in an effort to effect some cleaning action. Although achieving this result to some extent, such cleaning action was more than offset by the additional moisture removed from the lint because of excessive drying practices. In effect, additional fuel costs were incurred by the ginner while the producer suffered a loss in weight resulting from moisture removal.

Horsepower requirements for drying range from 21 percent of the total required per gin for lint cleaner plants to 25 percent for gins without this machinery (table 1). When fuel for heaters is added to that required for operation of fans, screw conveyors, and drives for driers, average fuel costs for driving operations exceed 50 cents per bale. By contrast lint cleaners consume 13 percent of the total horsepower required, an average operating cost of 11 cents per bale. Thus, the substitution of lint cleaners for one of the driers in multi-drying units would result in very little, if any, additional operating costs and would assure the ginner of offering a better service to producers.

Average seasonal grade improvements achieved by the use of lint cleaners resulted in a net increase in value of $1.20 and $2.00 per bale for hand- and machine-picked cotton, respectively, in 1949. This takes into consideration the losses in weight incurred by the removal of foreign matter by the lint cleaners, losses in moisture content, and the higher ginning revenue as compared with plants not so equipped.

Average cost of operation for lint-cleaner-equipped plants was slightly over one dollar per bale higher than for gins not having this equipment at similar volumes. A large part of this additional cost is comprised of depreciation, interest on investment, fuel, labor, taxes, and insurance.

Table 2.—Estimated cost of ginning, per bale and per season, at gins with and without lint cleaners, in the Yazoo-Mississippi Delta area, by specified volumes of ginning, season 1949-50. [1]

Assumed volume of ginning	Estimated cost of ginning by—			
	Gins with lint cleaners		Gins without lint cleaners	
	Cost per bale	Cost per season	Cost per bale	Cost per season
	Dollars	Dollars	Dollars	Dollars
Bales:				
2,000	13.12	26,240	12.17	24,340
3,000	11.93	35,790	10.90	32,700
3,087 [2]	11.87	36,643	10.83	33,432
3,409 [3]	11.65	39,715	10.60	36,135
4,000	11.34	45,360	10.27	41,080
5,000	10.99	54,950	9.89	49,450

[1] Adjusted to account for differential labor rates and repair expenses.
[2] Average volumes ginned at plants without lint cleaners.
[3] Average volumes ginned at plants with lint cleaners.

Better service usually means increased ginning volumes, which also generally require more facilities in the form of seed houses, sheds, or storage places. Thus, capital outlays for improved machinery usually require additional expenditures for other buildings and auxiliary services provided by the ginner.

The volume of ginning required to justify the additional expense involved in adding lint cleaners has been a subject for discussion among ginners during the last several years. Generally such a discussion divides itself into two categories, namely, are lint cleaners being installed to effect grade improvements on customer-owned cotton and thereby increase potential volumes, or will grade improvements be made on cotton which is owned by the gin operator? If it is ginner-owned cotton, then the necessary increase in volume required is not too much, since part of the increased value of the lint may be assessed against the increase in costs. Again, however, such decision must also be based on the proportion of the total ginnings which is within the range of Strict Low Middling to Strict Good Ordinary and below. Generally it has not been economical to subject Middling cotton to lint-cleaning action because of the loss in weight involved and the small prevailing premiums for the higher grades. Another consideration must be the possible decrease in operating costs of driers through the substitution of the lint cleaners.

Custom ginners necessarily must rely on increased volumes to offset the added costs of lint cleaners. A plant without lint cleaners having a volume of 3,000 bales has an estimated average cost of $33,000, or $10.90 per bale (table 2). Total ginning costs for a lint-cleaner-equipped plant approximates $45,000 at a volume of 4,000 bales, or an increase of $12,000. This increase is partially offset by the additional ginning revenue of approximately $5,500 received for the use of lint cleaners and the effect of the added volume, which is generally above the break-even point, on ginning income. Thus, the total income from a 1,000 to 1,500 bale increase in volume should more than offset the additional cost incurred in providing the service of lint cleaning at custom-operated plants.

New Zealand Harvests Large Flaxseed Crop

New Zealand's 1950-51 flaxseed production is estimated at 320,000 bushels from 19 to 20 thousand acres. Favorable growing conditions resulted in a better-than-average yield from an acreage more than double that of the two previous years. Of this season's production, 280,000 bushels will be expressed for oil and 40,000 retained for seed.

The only firm expressing oil in the dominion would like to expand the area sown to flaxseed to meet domestic requirements. It is estimated that 30,000 acres of flaxseed would supply this need. The paint industry, on the other hand, prefers to have some of the country's requirements imported as oil. A compromised solution may be reached and possibly the area sown to flaxseed will exceed the 20,000 acres planted this year, but not reach the 30,000 acres that would satisfy the dominion's requirements for oil.

Cotton has put Fashion

IN THE BAG

The lowly cotton bag has ridden a spectacular road to new success during the last few years. No longer are cotton containers for feed, sugar, flour and fertilizer destined to end up as drab dish cloths. Today, they are quickly transformed into smart street clothes, sports wear, gay curtains, slip covers or hooked rugs.

The idea was first suggested by the farmer's wife, who saw in each 100-pound sack of feed over a yard and a half of sturdy material for children's play clothes, bed spreads, work apparel and other useful household articles. Taking her suggestion, bag manufacturers glamorized their fabrics into colorful patterns — stripes, dots and floral prints — that were shrinkproof and colorfast.

Two years ago, the National Cotton Council began a purposeful program to popularize this new cotton bag. Using many types of media, the Council has done an excellent job of selling the use of the printed cotton bag to the packer and wholesaler. Through a parallel program that includes sewing booklets, style shows and magazine and newspaper publicity, the Council has done an equally fine job of selling the re-use of these bags to the consumer.

The success of this program is an excellent example of the industrywide progress being achieved through close teamwork, and with resulting benefits to cotton and to the millions who depend on it for a livelihood.

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Price-Wage Controls Prevent Inflation?

NO, SAY CRUSHERS AT PALM BEACH

But, they insist, it can be done (1) by balancing the budget; (2) limiting credit; (3) properly managing outstanding public debt; and (4) encouraging production of raw materials and finished products.

DECLARING THAT the government's attempts to control inflation through the use of price and wage controls "have no effect whatever" upon the supply of money, "which is the basic cause of inflation," the National Cottonseed Products Association at its fifty-fifth annual convention at Palm Beach, Fla., May 14-15, unanimously adopted a resolution condemning the present control measures and proposed a four-point program (see box this page) which it called a "positive program of inflation control."

• **J. H. Bryson New President**—At the final session May 15 the association elected J. H. Bryson president, succeeding W. D. Lowe, Jackson, Miss. Mr. Bryson is president of the Dothan Oil Mill Company, Dothan, Ala. Reappointed by the NCPA board of directors were T. H. Gregory, Memphis, executive vice-president; S. M. Harmon, Memphis, secretary-treasurer; A. L. Ward, Dallas, Educational Service director; John F. Moloney, Memphis, economist; and Walter B. Moore, Dallas, assistant Educational Service director.

• **Lowe Warns Against Socialistic Trends**—Retiring President W. D. Lowe of Jackson, Miss., told the crushers he felt the industry "has today the best public relations it has ever enjoyed." This didn't just happen, he said, but came about "because of our cooperation and work with the various land-grant col-

Inflation Control Program

The following is the text of a resolution unanimously adopted by the National Cottonseed Products Association at its Palm Beach convention, May 14-15.

THE FEDERAL GOVERNMENT is presently attempting to control inflation through the use of price and wage controls. Such controls have no effect whatever upon the supply of money, which is the basic cause of inflation. Price controls, if effective, do stimulate demand, discourage production, and waste large amounts of manpower in their administration.

The National Cottonseed Products Association, at its 55th Annual Convention, hereby records its disapproval of this unsound approach to the problem of inflation and urges the Congress to permit those sections of the Defense Production Act that permit price and wage controls to lapse on June 30, 1951. We further urge that Congress adopt a positive program of inflation control involving:

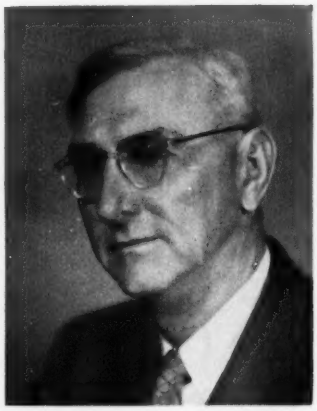
■ 1—A Federal budget that is balanced by a real reduction in non-defense expenditures, careful screening of "defense" expenditures and such taxes as may be necessary. Increased taxes during the temporary emergency, probably in the form of excises, should apply generally and not be limited to "upper bracket" incomes and corporations.

■ 2—The limitation of credit. In addition to steps already taken, the Federal Government should sharply curtail its direct extension of credit through such agencies as the RFC and its underwriting of credit through such agencies as FHA. It should very carefully scrutinize every application for accelerated amortization.

■ 3—The management of outstanding public debt must be handled so as to prevent rather than encourage inflation.

■ 4—Production of both raw materials and finished products should be encouraged in every practicable way that does not contribute to inflation.

In the event that Congress should renew the price and wage control provisions of the Defense Production Act, such an extension should not exceed one year, it should clearly provide for the honoring of valid contracts for future delivery that are in effect at the time any price ceiling is issued, and it should prohibit any general program of subsidies, which are highly inflationary.

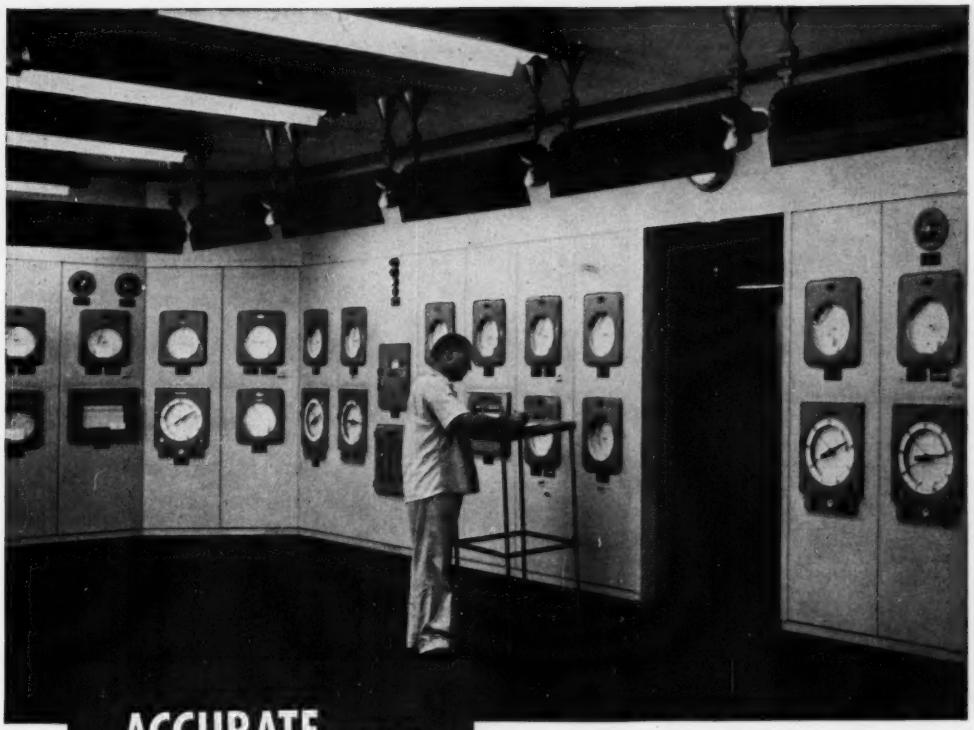


J. H. Bryson Will Head NCPA in 1951-52

J. H. Bryson, the new president of the National Cottonseed Products Association, has been president of the Dothan Oil Mill Company, Dothan, Ala., since 1923 and has two sons associated with him in the business. J. H. Bryson, Jr., is vice-president, and Rhett B. Bryson is assistant superintendent. The company operates two crushing plants, a peanut shelling plant and edible oil refinery, and is installing prepressing-solvent extraction equipment.

Mr. Bryson is a past president of the Alabama-Florida Cottonseed Products Association and a director of that association, and served two terms as president of the Southeastern Peanut Association and chairman of the association's executive committee for more than 10 years. During the last war he served on the edible oil advisory committee of the War Production Board. Currently Mr. Bryson is a member of the research advisory committee on oilseeds and peanuts and a member of the refining oil industry advisory committee of USDA.

The new NCPA president served two terms as president of the Dothan chamber of commerce; organized the Houston County chapter of the Red Cross and the Houston County Tuberculosis Association; and has been chairman of the Dothan City Planning Commission since its establishment about five years ago.



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Amsco Hi-Flash Naphtha
Amsco Super Hi-Flash Naphtha

leges, county agents and experiment stations, and laboratories through Mr. Ward (NCPA Educational Service director) and his field men. They have done a good job and this work should be enlarged if possible."

He reviewed the past year's work of the association in cooperation with Executive Vice-President T. H. Gregory, Secretary-Treasurer S. M. Harmon and NCPA Economist John F. Moloney, and paid high tribute to these men for the efficient, effective manner in which each of them serves the best interests of the industry. In speaking of the National Cotton Council, Mr. Lowe said, "I don't believe we can overestimate the value of our friendly and close connection with this organization." He praised the Council's staff of "young and aggressive men" and said the oil mills should by all means continue to support the organization in every way possible.

Mr. Lowe touched on the meetings last year with government officials to work out a cottonseed support program for the 1950 season—a program that was not needed because of the increase in the price of seed brought about by the Korean war — and warned the incoming NCPA administration to "be on its guard" against a return of supports later on. "The effort of Washington to completely socialize this industry is not dead," he cautioned, "but dormant." The only way the government can be prevented from socializing the industry, Mr. Lowe said, "is by members of the association sticking solidly together."

• **Gregory Outlines Inflation Control Program**—"While price support (of cottonseed) has been an academic matter during the 1950 crop year," NCPA Executive Vice-President T. H. Gregory said in his report to the convention, "there is no assurance that it will continue so during 1951. Presumably, the 1951 cotton crop will exceed last year's crop by a significant margin. While a great many other factors enter the picture, this may well result in lower product markets and a lower value for cottonseed than we have had during the 1950 season." He went on to say that he thought it "quite clear that a support price for 1951 cottonseed could be established at a level that would be of real concern to the industry."

The NCPA official said that price controls "have no limiting effect upon the basic course of inflation," but have the very opposite effect from that necessary to retard inflation. "If a price ceiling on any commodity is 'effective,'" he said, "it means that the price of that commodity is held below its real market value. This increases demand for the commodity, frequently to an extent that necessitates rationing. Simultaneously, the price ceiling holds returns to producers of the commodity below what they otherwise would be, thereby discouraging expanded production."

Mr. Gregory proposed a four-point program to prevent further inflation. First, he said, the federal budget must be balanced. Second, credit expansion must be limited. Third, management of the outstanding public debt must be handled in a manner that will prevent rather than encourage inflation. Fourth, we must eliminate the tremendous waste of labor of those who administer price control, waste of millions of man hours in industry by those who have to try to determine what the regulations mean, and waste of many more man hours try-

Photoviews of the NCPA's Palm Beach Convention

■ **TOP: The camera could take in only a part of the convention hall during one of the business sessions. The picture shows that the crushers were greatly interested in the proceedings.**

■ **CENTER, LEFT: Stephen Pace, former member of Congress from Georgia and now special counsel for the National Cotton Council, is shown addressing the convention.**

■ **CENTER, RIGHT: Retiring President W. D. Lowe addressed the convention and warned the crushers to be always on the alert to the dangers of encroaching Socialism.**

■ **BOTTOM, LEFT: Governor Fielding Wright of Mississippi called for a coalition third party made up of Democrats and Republicans, with a broad platform based on states' rights and Americanism.**

■ **BOTTOM, CENTER: Dr. A. M. Altschul, of USDA's Southern Regional Research Laboratory, discussed the Laboratory's cottonseed meal research program at the convention.**

■ **BOTTOM, RIGHT: Geo. M. Strayer, Hudson, Iowa, secretary-treasurer and a director of the American Soybean Association, attended the Palm Beach convention and spoke briefly to the crushers.**

ing to get unworkable regulations revised. "Let's eliminate these wastes," he urged, "and give our free market system a chance to produce, as only it can. This," he asserted, "would be a major step in the fight against inflation."

• **Harmon Reports Healthy Growth of NCPA** — In making his annual report, Secretary-Treasurer S. M. Harmon reported healthy growth by the association in the past year, with a net increase of 17 members. He urged each member to become more familiar with the organization's rules book, and placed particular emphasis on the settlement rules. "If you have differences in settling with another member," he said, "and the matter goes to an arbitration committee, it is well to remember that such committee, in rendering a decision, must be guided by the rules as written. In other words, its decision must be based on technicalities, as provided in the rules."

Mr. Harmon said "many of us are lax" in asking for or furnishing shipping instructions; or fail to protect our interests if there is a breach of contract; or are not careful in loading tank cars and so on. He then cautioned the members to be sure to obtain written or telegraphic confirmation of any changes in a contract after it has been made. "We urge you," he said, "to know your privileges and your responsibilities and carefully observe them. To do so will keep down many disputes and financial losses."

• **Ward Lists Challenges Facing Crushers**—Emphasizing that the buying, crushing, and marketing of cottonseed and other oilseeds and their products is a highly competitive business, A. L. Ward, director of NCPA's Educational Service, told the crushers in his annual report that they are faced with a continuing challenge to improve every phase of their operations.

In the past 25 years, he said, great strides have been made by beef cattle producers and feeders, dairy farmers, sheepmen, and swine and poultry producers in the production of meat and milk. "This increased efficiency in production," he asserted, "is accomplished by producers who demand from you and other manufacturers quality feed products."

During the past 25 years, Mr. Ward continued, the production of vegetable oil protein has more than doubled. "This is far more than the increase in the number of animals and poultry to use this protein. This means," he went on, "that we must face the challenge of more protein educational work. As yet, there is not enough protein used by the average feeder. It is our job to show him how protein will increase his production and lower his costs. We must also sell him quality protein."

Mr. Ward told the crushers they face the challenge of improving their processing through the adoption of screw pressing and solvent extraction, or a combination of both methods; of being up to the minute in feeding advice; of improving their merchandising methods; of securing the maximum cooperation "from the talented scientists working at the many state and federal institutions;" and of seeking new oilseed crops.

"I know that you collectively will agree with me that an individual company or industry without a challenge soon dies," he concluded. "I know also that you agree with me that men—real men—and strong industries thrive best when their strength is tested and challenged. Yes, I think this industry will grow more rapidly under challenging conditions."

• **Stephen Pace Is Speaker** — Former Congressman Stephen Pace of Georgia —now special counsel for the National Cotton Council—was a featured convention speaker and gave the crushers a detailed report on the present cotton situation, cotton's long-range outlook, and an analysis of the muddled Washington scene. As for this year's crop, he said, "I think I can predict . . . that, with average yields, we will produce at least 16 million bales . . ."

Referring to the tremendous effort to meet the challenge of a huge crop this year, Mr. Pace said the cotton farmers have turned their backs on "a short supply with a good price" and "walked right into a surplus." Growers have done this, the former Georgia congressman asserted, "in order to serve their nation in response to the call of their government."

"I don't feel that the nation has any greater responsibility, that Mr. Brannan, the secretary of agriculture, and that Mr. Truman, the president, has any greater responsibility than to see the cotton producers of the nation are protected in the effort they are now making in behalf of our defense program. I don't know any other defense producers that are not fairly well taken care of before they enter into production," he asserted.

Referring to the possibility of a cottonseed support program this year, Mr. Pace said, "It is anticipated that the support price on cottonseed will be 90 percent, to keep them in line with soybeans. You probably know that the parity price this time last year was $66. Now, parity is $73.90, and 90 percent is $66.51 . . . Now, there are two methods under consideration . . . in Commodity Credit Corporation as to your support price program on cottonseed . . . One proposal is the same as the 1950 plan, whereby you dealt with the gins. The other is a plan comparable to that you had in the last war, where they granted support on the end products with a certification from you that the producers had received the support price."

Mr. Pace discussed the Defense Production Act and told the mill men that "one of your great problems in Washington on controls is the type of personnel administering the program. They are men without broad business experience," he said; "they are men with little understanding of industry, and the consequence is, great delays and orders which do not entirely make sense."

• **Governor Wright on States' Rights**—Governor Fielding Wright of Mississippi, who addressed the convention May 15, outlined a third-party plan which he said would avoid a "splinter" party, but bring about a coalition under the banner of states' rights and Americanism. He led the Southern Democrats' rebellion in 1948.

This time, Governor Wright said, he wants the states' rights supporters to come from the ranks of unhappy Republicans as well as Democrats. "Both major parties," he said, "have betrayed their trust, seeking votes of minority interests and knowing their followers go along because they have no other place to go."

• **Doctor Altschul Discusses Meal Research**—The crushers heard a very interesting report by Dr. A. M. Altschul of USDA's Southern Regional Research Laboratory at New Orleans on the Laboratory's cottonseed meal research program. Doctor Altschul is head of the Laboratory's protein and carbohydrate division. (Note: Doctor Altschul's paper will be included in the official minutes of the convention, copy of which will be mailed to the NCPA membership.—Ed.)

• **Educational Service Breakfast** — The annual Educational Service breakfast, given Sunday, May 13, was attended by staff members, state association secretaries, and members of the NCPA's public relations committee. A. L. Ward, Educational Service director, presided.

J. E. Moses, secretary of the Georgia state association, and T. R. Cain, secretary of the Alabama association, arranged the program, which featured an inspirational talk by Col. Earl Norman, Washington, Ga., attorney who has given much of his time to work with young people in Georgia. He emphasized the importance of working with these young people and taking an active part in 4-H Club and F.F.A. activities. Colonel Norman stressed particularly the character-building value of those activities.

J. A. Rogers, secretary of the Mississippi state crushers' association, made a brief report on the effective use of weather reports in controlling cotton insects.

• **Old Guard Reunion**—The 33rd annual reunion of the Old Guard was held in the Coral Room of the headquarters hotel Monday evening, May 14. The tables were beautifully decorated for the occasion and a delicious meal, preceded by cocktails, was served.

The Honorable Christie Benet was president of the Old Guard at the time of his death. Vice-president Thomas C. Law, Atlanta, presided at the meeting. The meeting was well attended, some 40 members being present.

Officers for the ensuing year are Thomas C. Law, Atlanta, president; Jas. R. Gill, Paris, Texas, vice-president; Irvin Morgan, Jr., Farmville, N. C., secretary; S. M. Harmon, Memphis, treasurer; and R. M. Hughes, Greer, S. C., historian.

F. N. Bridgers, Wilson, N. C., was elevated to an honorary member. New members elected were H. E. Covington, Jackson, Miss.; W. McD. Jones, Bishopville, S. C.; A. K. Shaifer, Clarksdale, Miss.; George A. Simmons, Lubbock, Texas; S. J. Vaughan, Jr., Hillsboro, Texas; W. F. Bowld, Cincinnati, Ohio; and J. O. Wilson, Atlanta.

• **Entertainment Features** — Entertainment features of the convention included a luncheon for the ladies in attendance; the annual banquet and dance, scheduled to be held on the Cabana Terrace of the Palm Beach Biltmore Hotel, convention headquarters, which had to be moved inside of the hotel on account of rain; and the annual golf tournament, held at the West Palm Beach Country Club.

• **1951-52 Directors** — Members of the board of directors of the NCPA for 1951-52 are as follows:

Alabama and Florida—J. V. Kidd, Birmingham, Ala., reelected; Arkansas —Zach McClendon, Monticello, replacing W. H. Lillard, Morrilton; California and Arizona—O. L. Frost, Bakersfield,

(Continued on Page 40)

Vegetable Oil Crops As Food, Feed, and Industrial Raw Materials

Above: African oil palm.

Below: Venezuelan coconut.

By K. S. MARKLEY

Southern Regional Research Laboratory
New Orleans, Louisiana [1]

VEGETABLE-OIL CROPS are important sources of food for people everywhere. They furnish in high concentration two of the three primary food essentials, fat and protein. The third, carbohydrate, is a minor part of most oilseeds.

The fats or oils obtained by various methods of processing oilseeds are eaten in many forms—as table or cooking oil, salad dressing, shortening, and margarine, among others. They are also used in many nonfood forms, which are generally classed as industrial uses, such as paints, varnishes, enamels, synthetic resins, caulking and sealing compounds, soaps and other detergents, cosmetics, and drugs.

Oilseeds yield byproducts of various types, principally high-protein meals, to which reference will be made later.

• **Three Principal Classes**—The common commercial vegetable oils of the world are divided into three principal classes with respect to their predominant use, namely, edible oils, drying oils, and soap oils. The classes overlap, and many oils find uses in two and sometimes all three of the categories. For example, soybean, rape, linseed, and safflower oils are of all three types. Coconut and palm oils are used extensively in the manufacture of soap, but they also go into edible products. Perhaps the only strictly nonedible vegetable oils are tung, castor, and a few others of minor importance. Castor oil is used for medicinal purposes, however, and it and tung oil could be converted by the oil technologist to edible products should the need arise.

The difference between fats and oils is purely physical—a fat is an oil in a semisolid or plastic state, and its relative liquidity depends primarily on temperature. All liquid oils assume a semisolid, or plastic, state if the temperature goes down enough and all semisolid, or plastic, fats become liquid if the temperature goes up enough.

The terms semisolid and plastic are used because the fats generally found in the home are actually not solid. They are composed of a relatively small proportion of crystalline particles intimately mixed with liquid oil. Thus at 70° F., only about one-third by weight of lard is in the solid state. A few natural fats, principally the nut butters, such as cocoa butter, are largely in the solid state at room temperature. For all practical purposes, the terms fats and oils may be used interchangeably.

• **Consumption in the United States**—In recent years we have consumed about 10 billion pounds of vegetable and animal fats and oils annually, or about 66 pounds per capita, including those consumed in the form of edible products, such as butter, lard, shortening, cooking and salad oils, and those in the form of soap, paints and varnishes, printing ink, linoleum, oilcloth, and hundreds of other manufactured products. Of the 66 pounds of total fats consumed per person in the United States in 1949, about 43 pounds were edible products. The figures represent only the visible fats. An equal amount is represented by the invisible fats in meat, fish, milk, cheese, eggs, nuts, and other foods of relatively high fat content. Of the visible fats and oils, about 55 percent are of animal origin and 45 percent of vegetable origin.

• **United States Production**—Before the second World War, the United States did not produce enough fats to supply its needs and consequently was a net importer to the extent of about 1.5 billion pounds annually. It became a net exporter after 1942, when shipments abroad greatly expanded under lend-lease. From 1946 to 1948, this country was again a net importer, but in 1949 exports exceeded imports by more than a billion pounds. We depend on foreign sources for a number of fats and oils that cannot be produced at home (coconut and other palm oils, for example) or are produced in insufficient quantity to meet domestic re-

[1] One of the laboratories of the Bureau of Agricultural and Industrial Chemistry, Agricultural Research Administration, U. S. Department of Agriculture.

quirements (for example, tung oil); we have too limited an area with the climate that those plants need.

• **Production in Europe and Other Parts of the World**—We are, however, much more favored in this respect than Europe, where, except in the southern part, only a few oilseed crops (rape, mustard, and flax) can be grown. Much of Europe, therefore, depends on other parts of the world for most of its fats and oils. Some other areas, like the West Indies, parts of Central America, and the northern part of South America, have a favorable climate but not enough arable land. Oilseed crops are grown extensively in India and China, but they are generally adequate for only an extremely low level of fat consumption. On the other hand, the Philippines, Sumatra, the Solomons, and other South Pacific islands, Malaya, parts of Africa, and Brazil and Argentina have large exportable surpluses of oilseeds or fats and oils derived from them.

The production of fats has probably never been large enough to meet the world's needs. It is now fairly well established that an adequate diet should contain approximately 125 grams (about 4.5 ounces) of fat a day, which corresponds approximately to the average consumption (visible and invisible) by the people of the United States. During the second World War, the fat supply of the American soldier amounted to 193 grams (approximately 7 ounces) a day; that high-calorie diet may have been the reason for his superior health. In many countries (China, the West Indies, and several Latin American countries), the consumption of fat is only a fraction of that amount. In some countries it is as low as 10 to 30 grams (1 ounce or less) a day. To supply the present world population of more than 2 billion people with the 43 pounds of edible fats and oils equivalent to the present per capita consumption in the United States would require an annual production of 40 to 50 million tons of these materials. An average production of 400 pounds of fat or oil to the acre (which is much higher than the present average in the United States) would require the cultivation of 200 million to 400 million acres of land for this purpose alone and the employment of many thousands of workers on farms and in oil mills, refineries, and factories.

Sources of Vegetable Oils

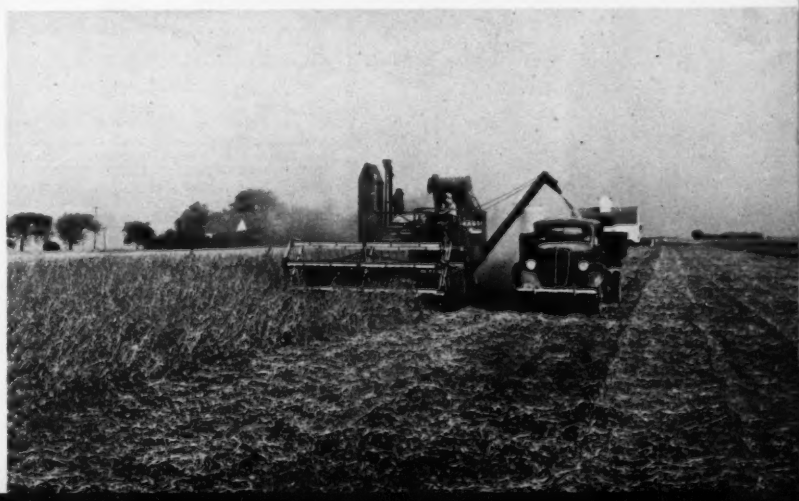
Vegetable oils are obtained from plants of different species belonging to diverse genera and families and from various plant organs, but principally from seeds, nuts, and fruits. Oils are often derived from seeds grown for something else besides their fat content. Cottonseed is grown primarily for the attached lint or fiber, cereal grains for their starch and protein, and cacao beans for their coloring and flavoring constituents. These diverse plant materials are often referred to as oilseeds, but more properly they should be called oleaginous or oil-bearing materials.

• **Types of Oilseeds** — Typical oilseeds are linseed, rapeseed, sunflowerseed, teaseed, and sesame seed. Soybeans and peanuts are leguminous oilseeds. Byproduct oils are obtained from the germs removed from corn, wheat, and grain sorghum when they are milled to produce starch, and from the bran, polish, and germs removed during the milling of rice. Olive, palm, and avocado oils are

Above: A field of flax in bloom in South Texas.

Above: Harvested peanuts on stacking posts.

Below: Combining soybeans in the Middle West.



Above: Cluster of tung fruit.

Above: Sesame plants.

Below: Field corn.

produced from the fleshy parts of the fruit of those trees. The coconut, various other palm nuts, walnuts, pecans, almonds, and other tree nuts also are sources of fats and oils. Oils are obtained from certain inedible seeds and nuts, including castor seeds and tung nuts. Nut butters are recovered from a number of tropical seeds and nuts. Best known in this country is cocoa butter, but shea butter of West Africa, mowrah butter of India, and Borneo tallow of Malaya and Borneo are important items of commerce. They and other vegetable butters are the only seed fats that are truly solid at ordinary temperatures. Cocoa and other vegetable butters, ground or blended with cocoa powder, are used for coating and filling confections, coating icecream bars, and making bakery products.

It is apparent from the variety of oil-bearing plants enumerated above that much of the cultivated land of the world must be devoted to the production of these crops, and indeed that is the case.

• **Where They Are Produced** — The United States is one of the foremost producers of oilseed crops, but practically every country, except those in extreme northern latitudes, grows some oil-bearing plants.

The plants vary greatly as to the types of oil they contain, largely as a result of differences in climate. The three principal zones for oilseed crops are the Temperate, Subtropical, and Tropical. Although there is some overlapping, generally speaking, oilseed plants of one zone cannot be grown in another, except where altitude may affect the climate. Thus, oil-producing palms are grown only in the Tropics; cotton, and olive and tung trees, and castor plants in the Subtropics; and flax, sunflowers, rape, and soybeans predominantly in the Temperate Zone.

The oils from the different zones generally differ in chemical composition and often in uses. Chemical and physical treatments now make possible an interchange in the uses of vegetable oils. Many, however, retain their original special uses. The palm oils of the Tropics, for example, are still essential for good lathering soaps. Linseed oil from the Temperate Zone has kept its position as the primary oil component of high-quality paints. Cottonseed, peanut, and sesame oils of the Subtropics are high-quality edible oils. Soybeans and rape, predominately Temperate Zone products, contain oils of higher degree of unsaturation (soybean) or of unusual composition (rape), which make them somewhat less desirable as edible oils. Through the application of modern technology, however, those oils can be processed to make good edible products.

• **Their Relative Importance** — Many vegetable oils are produced and consumed in various parts of the world, but 13 crops account for approximately 90 percent of all the vegetable oils of commerce. Accurate figures for recent world production of fats and oils are not available, but before the second World War coconut, peanut, and cottonseed oils, in the order named, were each produced in excess of 2 million tons annually. They constituted half of the total world production of 14 million tons.

Next in importance are soybean, rape, mustard, and linseed oils, which accounted for nearly 30 percent of the total. The remaining 20 percent came from olive, palm, sesame, sunflower, palm kernel, tung, and babassu. The relative positions of these oils have probably changed during the past decade. Coconut and peanut oils undoubtedly still rank first and second, but world production of soybean oil may have passed that of cottonseed oil, and the production of sunflowerseed oil is probably above that of some of the oils that previously outranked it. The cultivation of rape and mustard has greatly increased in central Europe. During the war, rape was the principal source of vegetable oil in Germany and northwest Europe after maritime commerce ceased under the Allies' blockade.

Although the United States is one of the world's largest producers of oilseed crops, we contribute little to the world production of the two principal ones—coconuts and peanuts. In fact, this country contributes to only 6 (Tables 1 and

Table 1
Production of Principal Oilseeds in the United States

Period	Soybeans 1,000 tons	Cottonseed 1,000 tons	Linseed 1,000 tons	Peanuts [1] 1,000 tons	Olive [1] tons	Tung nuts tons
1943	5,704	4,688	1,400	1,089	57,000	6,200
1944	5,758	4,902	606	1,040	42,000	26,680
1945	5,762	3,664	967	1,021	30,000	37,080
1946	6,038	3,513	632	1,019	48,000	57,400
1947	5,506	4,681	1,135	1,091	40,000	53,200
1948	6,690	5,945	1,527	1,169	58,000	58,500
1949	6,927	6,559	1,230	938	35,000	87,900
1950	8,610	4,005	1,099	1,019	43,000	38,750
1939-48 Av.	4,935	4,730	973	975	47,900	27,632

[1] Only small percentage of total production crushed for oil.

Table 2
United States Production of Crude Vegetable Oils from Domestic and Imported Oilseeds (million pounds)

Source	1944	1945	1946	1947	1948	1949 [1]	1944-48
Domestic							
Soybean	1,246	1,392	1,454	1,524	1,807	1,935	1,485
Cottonseed	1,132	1,273	966	1,357	1,735	1,792	1,293
Linseed	732	452	512	689	731	725	623
Corn germ	211	205	193	201	225	242	208
Peanut	108	95	101	141	146	182	118
Olive	6	4	2	3	5	2	4
Tung	3	10	11	16	17	24	11
Foreign							
Linseed [2]	204	72	64	5	20	3	73
Castor	165	143	91	117	136	128	130
Coconut	128	151	349	778	557	491	393

[1] Preliminary.
[2] Oil equivalent of imported flaxseed.

2) of the 13 leading oilseed crops and extensively to only 3 of them—soybeans, cotton, and flax in the order named. American production of peanuts and olives is sizable, but only a part of each is processed for oil. However, the United States produces a rather large amount of corn oil, which is almost entirely consumed domestically. For that reason, and because it is obtained as a byproduct in the recovery of starch, it is not classed as one of the primary vegetable oils of the world.

Normally we crush large quantities of several oil-bearing materials, although we do not grow them. We obtain castor seed principally from Brazil and copra (dried coconut meats) principally from the Philippines.

Yields of Oil and Meal

Oil-bearing materials vary widely in oil content and hence in the yield of oil and meal. The yield of oil also varies with the method of processing. The average yield of oil varies from 63 percent for copra to 16 percent for soybeans, and the yield of meal varies from 35 percent for copra to 80 percent for soybeans (Table 3).

Table 3
Average Yields of Oil and Oil Meal per Hundred Pounds of Oil-bearing Material, United States [1]

Oil-bearing material	Yield per hundred pounds	
	Oil	Meal
	Pounds	Pounds
Copra	63.0	35.0
Babassu kernels	63.0	35.0
Sesame seed	47.0	48.0
Palm kernels	45.0	53.0
Flaxseed	34.0	64.0
Peanuts	29.0	43.6
Sunflowerseed	25.0	73.0
Cottonseed	15.5	45.0
Soybeans	15.0 [2]	80.0

[1] From P. L. Hansen and R. L. Mighell, **Oil Crops in American Farming**, U. S. Dept. Agr. Tech. Bull. No. 940 (1947).
[2] For the crop year 1947-48 the yield of oil per bushel of soybeans varied from 14.1% for hydraulic press mills to 17.7% for solvent plants and averaged 16% for all types. For the 1948-49 crop these figures were 14.4%, 18.2%, and 16.4%, respectively.

• **Oil Content Is Farmer's Primary Concern**—Because oil brings a higher price than meal, the farmer is interested primarily in the acre yield of oil which is determined by the yield of seed, the oil content of the seed, and the amount of oil that can be recovered by the processor.

Oil plants from the Tropics are far more productive than those from the Subtropical and Temperate Zones. The range is from 2,500 pounds of oil to the acre for the African oil palm to 70 pounds for cottonseed (Table 4). Also, tree plants, such as the oil palm, coconut, and olive, yield much more oil to the acre than do annual plants. Larger yields

Table 4
Average Yields of Seed and Oil per Acre

Oilseed	Seed lbs./acre	Oil lbs./acre
Palm and palm kernel [1]		2,500
Coconut (copra) [2]	1,160	730
Sesame [3]	800	375
Rapeseed (colza) [4]	1,000	350
Sunflower [5]	1,000	275
Peanuts [6]	708	205
Flaxseed [6]	504	172
Soybeans [6]	1,128	170
Cottonseed [6]	437	70

[1] Netherland E. Indies, 1936.
[2] Philippine Islands, 1932.
[3] Nicaragua, 1947.
[4] France, 1930-39 average.
[5] France, 1946-47 average.
[6] United States, 1937-46 average.

of byproducts (meal from soybeans or meal, linters, and hulls from cottonseed) compensate in part for low oil yields. The value of the crop is, therefore, determined by the total yield of products from the seed. In the case of cottonseed, which is itself a byproduct, the lint is the most valuable product for the farmer.

• **Protein Content Is Important** — Oilseeds usually contain relatively large percentages of protein. In general, the higher the oil content of the seeds, the lower the protein content, and vice versa. After removal of part or all of the fatty portion of oilseeds, the residual cake or meal is used as a feed for livestock and, to a limited extent, as human food and in the manufacture of industrial products.

When it is fed to livestock, part of the meal or cake reappears in the form of fat—for example, butterfat in milk, tallow, lard, and grease. Those fats may be derived from the oil left in the cake or meal after processing, or they may result from conversion into fat by the animal of the carbohydrate and (to a lesser extent) the protein. Oilseeds thus are both direct and indirect sources of fats and oils.

Oilseeds contribute a great deal to livestock production and thus indirectly to fat supplies. Since 1942, domestic production of oilseed cakes and meals has been approximately 6 million tons annually, or about three-fourths of the total production of vegetable- and animal-protein concentrates. Soybean cake and meal, amounting to 3 million to 3.6 million tons, accounted for more than half of that production. Cottonseed cake, amounting to 1.5 million to 2 million tons, accounted for an additional 25 to 35 percent.

When the feeding of high-protein concentrates was practiced less extensively in this country than at present, large quantities of cottonseed cake and meal were exported to Europe, where part of it was extracted with solvents to remove the oil and the residue was fed to livestock. Exports of cottonseed cake and meal reached an all-time high of 875,000 tons in 1908-1909. Large quantities of oilseed cakes were once used as fertilizer because their value as livestock feed was not appreciated.

• **Oilseed Meals in Food Products**—Specially processed oilseed meals or flours have many uses in food products—in the form of breakfast foods; as substitutes, extenders, or binders in meat products (sausage, frankfurters, and liverwurst); for fortifying wheat flour, especially in doughnut mixtures, cake doughs, and cookies; as a filler for confections; as a thickening for soup stock; as a source of protein substitutes for egg white and milk solids; and, after digestion with acids or micro-organisms, as meat sauces and flavoring. For those purposes, soybean meal and flour have been used mainly, although some cottonseed meal has been used in a few of the products.

Sometimes the meals that remain after removal of the oil cannot be eaten because they contain toxic substances. That is true of castor and tung meals. However, during the war, large quantities of castor pomace or meal were used in Germany to produce such edible products as bouillon cubes, soup stock, and meat sauce. The processes employed were not economical and they are no longer operated.

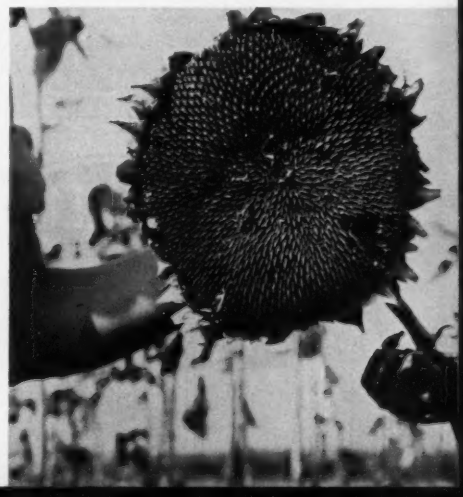
• **Other Uses**—Prepared oilseed meals or their derived proteins are also used

(Continued on Page 47)

Above: The castor bean.

Above: An olive grove.

Below: Sunflower head.



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Alexandria Is Site of

La.-Miss. Ginners' Meeting May 29

■ **Large attendance is expected at one-day session. Speakers will include Charles M. Merkel, Vernon P. Moore, O. J. Bori, Jr., W. E. Anderson and L. F. Curl.**

Some 300 cotton ginners and members of allied cotton interest groups are expected to attend the twenty-first annual convention of the Louisiana-Mississippi Cotton Ginners' Association at Alexandria, La., May 29.

President J. H. Williams will call the meeting to order at 9 a.m. in the City Park Auditorium. Following the president's annual report Kemper Bruton of the National Cotton Council's staff will give a brief report on that organization's activities.

• **Report From Stoneville**—At 9:30 a.m. Charles M. Merkel, engineer in charge of the U.S. Cotton Ginning Laboratory at Stoneville, Miss., and Vernon P. Moore, chief, Cotton Research Laboratory, Stoneville, will give technical addresses relating to cotton ginning practices and lint quality. "Better Lint Through Better Ginning Methods" is the title of Mr. Merkel's paper on new developments in modern ginning practices.

Mr. Moore will discuss some "Effects of Ginning Practices on Cotton Quality," dealing primarily with drier temperatures, tight seed rolls, gin stand and lint cleaner operation.

• **O. J. Bori, Jr., to Be Keynote Speaker**—Keynote address will be delivered by O. J. Bori, Jr., statistician for the Illinois Central Railway System, Vicksburg, Miss., who has recently been elected "outstanding man of the year" of Vicksburg. "A Time for Warning" is the title of his talk, which will be a comparison of socialism and communism with American free enterprise.

• **Pink Bollworm Control to Be Emphasized**—Particular attention will be paid at the convention to problems related to the pink bollworm infestation discovered in certain areas of Louisiana last year, President Williams said in announcing the convention program. Two speakers, W. E. Anderson, Louisiana commissioner of agriculture, and L. F. Curl, leader of USDA's Division of Pink Bollworm Control, San Antonio, Texas, will discuss this subject.

Talking on "Problems in the Cotton World," Mr. Anderson will discuss raw cotton price ceilings and other problems faced by producers in reaching the 16,000,000-bale cotton goal set for this year, as well as give a brief history of the pink bollworm and of the state's efforts at eradication of the pest.

Final speaker will be Mr. Curl, who will describe quarantine regulations and other control measures for eradicating the pink bollworm.

• **Oil Mills to Sponsor Barbecue**—A barbecue luncheon will be served under the live oaks at 12:30 p.m. for the ginners and their wives by Louisiana oil mills.

• **Business Session in Afternoon** — A closed business session will begin at 2 p.m. At this session Alois Mayers, director of weights and measures, Louisiana Department of Agriculture and Immigration, will discuss problems related to weights. The election of officers will be held following committee reports.

• **Officers**—Officers of the Louisiana-Mississippi Cotton Ginners' Association are J. H. Williams, Natchitoches, La., president; C. E. Fontenot, Eunice, La., vice-president for Louisiana; C. B. Young, Sardis, Miss., vice-president for Mississippi; G. M. Lester, Jackson, Miss., treasurer; and Gordon W. Marks, Jackson, secretary.

Carolinas Ginners Plan District Meetings

Louis G. McGill, executive secretary of the Carolinas Ginners Association, advises that plans for the annual district meetings are being completed.

Three of the meetings will be held in South Carolina and three in North Carolina. Most of them will be held in June.

Miss Ruark to Be Married

Marguerite Ruark of Bennettsville, S. C., attractive office secretary of the Carolinas Ginners Association, is soon to be married to Allen Hill, also of Bennettsville. Miss Ruark's sister will be married at the same ceremony, which will take place in Bennettsville's Presbyterian Church.

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National Oil Mill

Superintendents to Meet May 30-June 1

■ Hotel Plaza at San Antonio, Texas, will be headquarters for annual convention. Many technical talks are scheduled for sessions.

Many technical talks on various phases of oil milling and allied topics are scheduled for the program of the fifty-seventh annual convention of the National Oil Mill Superintendents' Association, which will be held at San Antonio, Texas, May 30 and 31 and June 1.

R. A. Hawley, Fort Worth, Texas, president of the Oil Mill Machinery Manufacturers and Supply Association, will call the convention to order at 9 a.m. May 30 in the Ballroom of the Plaza Hotel, headquarters for the meeting.

• **Research Work to Be Discussed**—Research programs in the oilseed industry will be discussed by several speakers, including Dr. C. H. Fisher, director, Southern Regional Research Laboratory, New Orleans, La.; C. C. McInnes, American Mineral Spirits Co., Chicago, Ill.; E. A. Gastrock, Southern Regional Research Laboratory; A. C. Wamble and W. D. Harris, Cottonseed Products Laboratory, Texas A. & M. College, College Station, Texas.

• **Oil Mill Operational Problems**—Problems in oil mill operation will be the topics of C. W. Scott, San Joaquin Cotton Oil Co., Chowchilla, Calif.; M. C. Verdery, Anderson, Clayton & Co., Houston, Texas; Dr. A. Ernest MacGee, Skelly Oil Co., Kansas City, Mo.; W. D. Baldwin, Hercules Powder Co., Memphis, Tenn.; and L. U. Cole, Industrial Machinery Co., Fort Worth.

D. B. Denney, Ne-Tex Cooperative Oil Mill, Wolfe City, Texas, will talk on government regulations, and L. F. Curl, leader, USDA's Division of Pink Bollworm Control, San Antonio, Texas, will give a colored film demonstration of pink bollworm control. R. B. Maas, Screw Conveyor Corp., Hammond, Ind., will also use a colored film to illustrate his address. Final address will be a report on West Coast activities of the association by H. F. Crossno, Los Angeles, Calif.

• **Entertainment**—A luncheon for ladies attending the convention will begin the entertainment features of the convention, which will include a three-hour sightseeing tour that afternoon. The business sessions will adjourn at noon each day of the meeting.

Members of the Twenty-Five Year Club will meet for luncheon on May 31. Another ladies' luncheon will be given on this day at the Roof Garden of the Plaza Hotel. Mrs. E. P. Arneson will review "Call Me Madam," current Broadway hit starring Ethel Merman.

The annual banquet and dance will be given in the Ballroom that evening.

Entertainment for the convention is provided by the Oil Mill Machinery Manufacturers and Supply Association.

• **Officers**—Officers of the National Oil Mill Superintendents' Association are W. G. Davis, Jr., Los Angeles, Calif., president; Bentley Page, Lubbock, Texas, vice-president; and H. E. Wilson, Wharton, Texas, secretary-treasurer.

Have You Suggestions For New Yopp's Code?

As a result of numerous requests from the trade, we are in the process of revising Yopp's Code. The last edition (eleventh) was published in 1937, and since that time there have been a number of changes in the industry which necessitate the revision of this code book.

Wm. Yopp, who with his father compiled and edited the previous editions, will handle the revision for the twelfth edition.

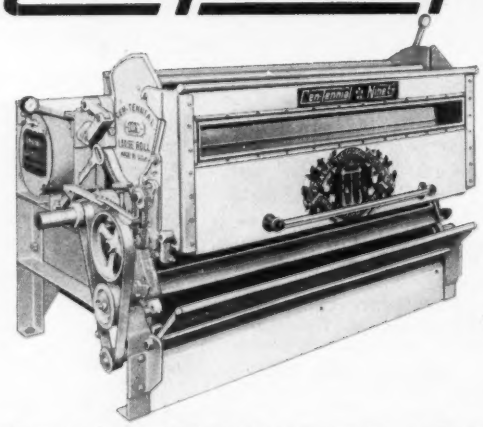
If anyone has suggestions for improvements, additions or deletions that might be incorporated into the new code book, please send them to the attention of Mr. Yopp, in care of The Cotton Gin and Oil Mill Press, P. O. Box 444, Dallas 1, Texas.

We plan to release the new book by September or October of this year.

Clayton Lowder Recuperates

Clayton Lowder, Sumter, S. C., ginner, is said to be recuperating from an operation in a Columbia hospital.

Cen-Tennial Ninety



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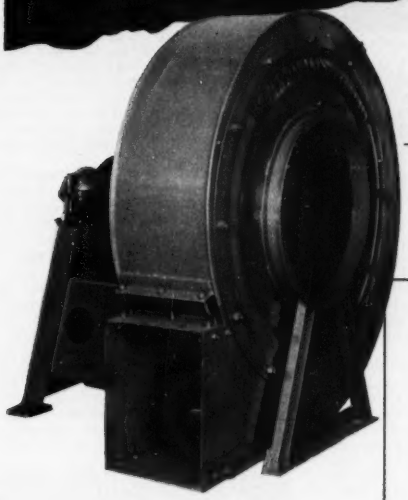

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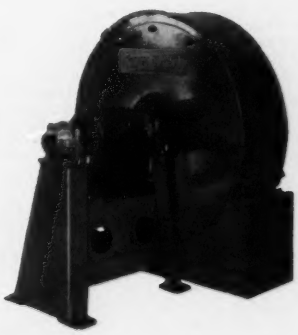

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From our Washington Bureau

By FRED BAILEY
and DON LERCH
Washington Representatives
The Cotton Gin and Oil Mill Press

BAILEY

LERCH

• **Congress Discounts Inflation "Wolf" Cries of OPS**—Inflation by fall is the battle cry of stabilization officials attempting to rush Congress into enactment of a new and broader Defense Production Act. The present price lull, they say, will be over by October and a new inflation storm will break unless Congress battens down prices now.

Administration officials have dropped earlier arguments that partial controls would be sufficient. Prices and wages must be managed from Washington or the whole defense program will be jeopardized, they argue. Congress is skeptical and inclined to discount much of the administration argument.

Stabilization officials are handicapped by two facts: First, prices generally have remained fairly steady since February and supplies generally are in excess of demand. Second, administration of controls has irritated Congress and the country. Producers say they are hurt and consumers complain they haven't been helped by price controls.

Congressional mail, always a potent influence, is running strongly against administration price policies. The burden of proof now is on stabilization officials. Their arguments, so far, have not been convincing to most congressmen. Controls are beginning to lose some of their allure, even to consumers who complain most bitterly about high prices.

• **OPS Pooh-poohs Farm Fears of Controls**—Farm leaders have better reasons than have yet been made public for fearing a broadening of control powers in the Defense Production Act. They are bound by a pledge of secrecy not to reveal the nature of a recent meeting with stabilization officials.

That meeting included President Truman, Mobilization Director Charles Wilson, Economic Stabilization Director Eric Johnston and Price Stabilizer Mike DiSalle. The occasion was a meeting of the Defense Mobilization Policy Board attended by farm and labor leaders.

Johnston and DiSalle were evidently annoyed by farm opposition to granting of broad new powers to the administration over prices. They ridiculed farm complaints against OPS and, in effect, accused farmers of being chronic bellyachers who wouldn't be satisfied no matter what was done.

DiSalle stated that he didn't think farmers were, or would be, hurt, and that he intended to ride out the storm of farm protests against the beef ceilings. He said he intended to control farm prices to the limit allowed by the law.

• **Modified Controls Likely**—The farm-led drive to kill OPS is generally conceded, even among farm leaders, to have only an outside chance of success. Even congressmen who are most bitter in their comments on controls admit that they will vote for extension of most control powers.

Most congressmen would like to chuck the whole kit and caboodle out, but they don't dare take the chance that inflation might hurt their chances of re-election next year. They will, as a result, vote for a continuation of modified controls.

The administration will not get all that the President has asked for. That is generally conceded. A spreading of the war in the Orient, or outbreak of hostilities in Europe, could change that, of course. But, as the situation now stands, this is the outlook:

Rollbacks of farm prices will be limited. OPS now has authority to roll back prices to parity or the highest price between May 26 and June 26, 1950, whichever is the higher. The maximum rollback may be limited to the highest price between Dec. 19, 1950, and Jan. 19, 1951.

The President's request for a year-at-a-time freeze of parity has little chance in Congress. Majority opinion now seems clearly against tampering with parity in any way.

Subsidies likely will be the big issue before Congress extends the Defense Production Act. The President asked for subsidy authority. Congress probably will remove the prohibition in the present act against subsidies and tell the President that when he wants to pay subsidies to come back and make a specific case for them.

• **Brannan Chooses Administration Line**—Farmers will have to fight their price control battle without the support of Agriculture Secretary Brannan. He has dashed hopes that he could be counted upon in countering OPS farm price policies.

Hopes that Brannan would be in farmers' corner when the showdown came were raised when he opposed cotton ceiling policies, when he made a strong case for parity before the House Agriculture Committee and again when he tried to persuade DiSalle against the cattle ceiling order.

Farm leaders knew that sooner or later he would have to make a choice as between the administration and the farm groups. They were disappointed, but not surprised, when he chose to follow the White House policy line on renewal of the Defense Production Act.

His official endorsement of the parity freeze, beef rollbacks and subsidies hurt. House Agriculture Committee Chairman Cooley attempted to blast him off that stand, but couldn't. Brannan acted as if he would like to, but didn't dare.

• **Bracero Bill Block to Lift Lid on Farm Wages** — Unless action of the House Rules Committee can be upset, farmers will be left to shift for themselves in obtaining farm labor this year. The Rules Committee voted to block House consideration of an Agriculture Committee bill which would open the way for importation of Mexican farm labor.

Farm leaders who backed the bill became so confident that it would pass that they went to sleep. The Labor Department, organized labor unions and the Farmers Union worked quietly behind the scenes to convince the committee that the bill should be killed without giving the House a chance to vote on it.

The Senate already has passed a similar bill, but the House can't take it up without unanimous consent. Meanwhile the Mexican government has advised the U.S. that unless legislation is enacted to make effective the agreement made earlier this year, the flow of Mexican workers to this country will be stopped on June 30.

The effect of this and the Wage Stabilization Board ruling on farm wages is to tell farmers: "If you want farm labor go out and bid against city wages." That is the result which the labor unions sought, with support of the Labor Department.

The board thawed the farm wage freeze in effect, theoretically, since January by advising farmers they could just about go the limit on bidding for workers. It raised the permissable farm wage to 95 cents an hour, or 10 percent over what was paid in the same period of 1950, whichever is the higher.

Farmers now can raise the wages of fulltime employes, without board per-

Dr. Neely on Coker's Staff

J. WINSTON NEELY has joined the staff of Coker's Pedigreed Seed Company, Hartsville, S. C., as director of plant breeding and agricultural research, George J. Wilds, president of the company, has announced. Doctor Neely went to Coker's from Stoneville Pedigreed Seed Company, Stoneville, Miss., where he had been plant breeder since 1946. "His experience and training fit Doctor Neely ideally for this position," Mr. Wilds stated. "He is a highly trained, hard-working, brilliant geneticist with highest integrity, and a special appreciation of the practical." Doctor Neely, who is a native of Arkansas, received his B.S. from the University of Arkansas and his Ph.D. from Cornell.

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mission, to $225 a month without room or board, $195 a month with house furnished, and $175 a month with room and board. But, a board official admitted, if farmers want to pay more than that "there isn't anything we can or will do about it."

The action of the board, coupled with that of the committee, is one that could have far-reaching effects in raising the cost of farm production. The almost certain result is a worsening of the already critical farm labor shortage.

• **Cotton Price Rollback Is Possible**—The Office of Price Stabilization will give no positive assurance that cotton prices will not be rolled back this summer. Officials say they have no "present intention" of a cotton rollback, but will not commit themselves beyond that.

The question was raised by testimony of DiSalle to the effect that he intends to "use full powers granted him by law" to control farm prices, and by his argument that, in the case of beef, at least parity is a fair price and anything above that is unfair to consumers.

The Agriculture Department says that any move to roll back cotton prices after the crop is in will be strongly opposed. But, officials concede, if DiSalle takes a notion to roll back prices there is nothing the department can do about it.

The department has officially announced that cotton will be supported at 90 percent of parity. At latest figures, that is 29.68 cents for ⅞" Middling. The final rate, however, will be either that or 90 percent of the Aug. 1 parity, whichever is the higher. Loan terms and differentials will be the same as 1950.

Legally, OPS could roll cotton prices back to a national average of close to 34 cents, parity according to latest figures. The highest price prevailing between last May 26 and June 26 is about 30 cents. Few here think a rollback of that extent is likely, but cotton officials definitely are uneasy.

Council Promotes Sale of Cotton Sport Shirts

A national merchandising campaign to promote the sale of cotton sport shirts is being sponsored by the National Cotton Council from May 15 to July 15.

The campaign will coordinate a nationwide advertising program in the transit systems of more than 500 cities and towns with retailers' window and point-of-sale displays. Manufacturers of cotton sport shirts have alerted dealers to the program and are distributing display material through their sales forces.

Three-color car cards, stressing the cool, fresh comfort of cotton sport shirts, are now being placed in streetcars, busses and subways of major markets all over the country.

Retailers in these cities have been supplied with 11"x28" streamers indentical to the cards to be used in point-of-sale displays. The Council has suggested that retailers feature these streamers during the period the car card is posted and that supplementary newspaper advertising be used at the same time.

The program is designed to stimulate sales during the peak sport shirt sales period in May, June and July and to create a demand throughout the summer season.

At Virginia Beach:

Carolinas Crushers To Meet June 4-5

■ Five principal speakers are announced for joint annual meeting of two associations. Large attendance is expected.

Five principal speakers have been announced for the two-day joint annual meeting of the North Carolina Cottonseed Crushers Association and the South Carolina Cotton Seed Crushers' Association at Virginia Beach, Va., June 4 and 5.

Registration will begin on Sunday, June 3 at the Cavalier Hotel, headquarters for the meeting. Advance registration at the hotel indicates a large attendance, association officials have announced.

• **Fleming and Dunn to Speak June 4**—Business sessions have been divided for the mornings of June 4 and 5, with two addresses slated for each session. R. M. Hughes, president of the South Carolina crushers, will preside at the first day's session and Paul Keller, president of the North Carolina association, will preside on the second day.

Speakers at the opening session June 4 will be Roger Fleming, secretary-treasurer of the American Farm Bureau Federation, Washington, D. C., and Read Dunn, Jr., director, National Cotton Council's Foreign Trade Division, Washington. Mr. Fleming's address is titled "The Choice Is Yours" and Mr. Dunn will talk on "Saving the American Dollar."

• **Lester and Mitchell to Talk on Second Day**—Speaking on the second day of the meeting will be Garner M. Lester of Jackson, Miss., treasurer of the Louisiana-Mississippi Cotton Ginners' Association and president of the National Tax Equality Association, whose topic will be "Yesterday, Today and Tomorrow—Taxes."

Final speaker will be Dr. Nicholas P. Mitchell, associate editor, The Greenville News, Greenville, S. C., whose address is titled "What a Man Can Believe."

• **Entertainment** — A golf tournament will be held the afternoon of June 4 at the Princess Anne Country Club. Ladies attending the meeting will be given a luncheon that day, and games are scheduled during the afternoon for those who are interested.

The annual banquet will be held that evening. After dinner speaker will be Billy Beard, known as "The Party from the South," who will talk on "A Cross Section of Observations." Dancing will follow the dinner.

• **Officers**—Officers of the North Carolina Cottonseed Crushers Association are Paul Keller, Clayton, president; W. V. Westmoreland, Goldsboro, vice-president; and Mrs. M. U. Hogue, Raleigh, secretary-treasurer.

Officers of the South Carolina Cotton Seed Crushers' Association are R. M. Hughes, Greer, president; and Mrs. Durrett L. Williams, Columbia, secretary.

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Hot Springs Is Site:

Arkansas-Missouri Ginners, June 4-5

■ **Executive committee will meet June 3. Addresses will range from ginning research to insect control.**

Details of the program for the thirty-fourth annual convention of the Arkansas-Missouri Ginners Association have been announced by J. Warren Karsten, Jr., executive vice-president and secretary-treasurer. The meeting will be held at the Arlington Hotel, Hot Springs, Ark., June 4 and 5, with an executive committee meeting at 4 p.m. June 3 preceding the general sessions.

• **To Start in Afternoon**—The registration desk will open on the mezzanine floor of the headquarters hotel at 9 a.m. June 4, but the convention will not be called to order by President Sidney C. Mack until 1:30 o'clock that afternoon.

Three addresses are slated for that afternoon following President Mack's annual address. Kemper Bruton, National Cotton Council, Memphis, Tenn., will discuss "Our 1951 Goal" and Charles A. Bennett, regional engineer, USDA Cotton Ginning Investigations, Stoneville, Miss., will describe "Current Ginning Machinery and Methods." Final afternoon speaker will be John C. Lee, vice-president of the New York Cotton Exchange, whose topic has not been announced.

• **Two Speakers on Morning Program**—Speakers at the morning session June 5 will be Jay C. Stilley, executive vice-president, Texas Cotton Ginners' Association, Dallas, and D. Gray Miley, superintendent, Delta Branch Experiment Station, Stoneville, Miss. "The Importance of Cotton Associations" is the title of Mr. Stilley's talk. Mr. Miley will discuss "Insect Control and Problems."

The convention will adjourn at noon following the reports of committees and election of officers.

• **Annual Banquet**—Annual banquet and dance of the convention will be held in the Main Ballroom of the Arlington at 7:30 p.m. June 4. Art Briese, humorist, will entertain the ginners and their guests.

• **Officers**—Officers of the Arkansas-Missouri Ginners Association are Sidney C. Mack, Newport, Ark., president; S. Crews Reynolds, Caruthersville, Mo., vice-president; and J. Warren Karsten, Jr., Kennett, Mo., executive vice-president-secretary-treasurer.

Carolinas Have Good Stand Of Cotton, Some Insects

We learn from Louis G. McGill of the Carolinas Ginners Association that the cotton crop is generally up to a good stand in the Carolinas.

Reports to the association office say some thrips have been found in the Piedmont areas, but most farmers plan to poison early to kill thrips and kill off the early boll weevil crop.

Rio Grande Valley Gets Rain, Storm Damage

The Rio Grande Valley of Texas and the Matamoros area of Mexico received highly beneficial rains in the past two weeks, saving much of the crop in both places. In Willacy County, however, some 5,000 acres of cotton are said to have been lost to hail and windstorms, with 14,000 acres suffering damage. However, reports indicate much of the latter acreage will go ahead and make a cotton crop.

Growers immediately asked the State Department of Agriculture to extend the planting date, but Agriculture Commissioner John C. White turned them down. He explained that an extension would mean stretching the cotton stalk destruction deadline to Oct. 15 and thus seriously endanger the success of the pink bollworm control program.

Dr. Lyle Heads Revised Agricultural Services

Dr. Clay Lyle, head of the Mississippi State Plant Board and dean of the School of Science at Mississippi State College, State College, Miss., has been named dean and director of Agricultural Services at the college under a revised program which will be effective July 1.

A graduate of the college, Dr. Lyle has been dean of the School of Science since 1945.

Under the new system, each division will be headed by an associate director, although it will retain its identity as well as its own funds.

Henry H. Leveck, who has been head of the animal husbandry department, has been appointed associate director of the Experiment Station, succeeding Dr. Frank Welch, who recently resigned as director to head the University of Kentucky's agricultural agencies.

Mose S. Shaw, assistant director of the Extension Service, has been named associate director, succeeding L. I. Jones, former director whose term was not extended by the board of trustees of the college. Mr. Shaw has been with the Extension Service 28 years, rising from assistant county agent.

Ernest B. Colmer, associate dean of the School of Agriculture since 1935, will continue in that position, taking over the duties vacated by Dr. Welch as dean of agriculture.

Succeeding Dr. Lyle as dean of the School of Science will be Dr. M. P. Etheredge, state chemist and head of the Department of Chemistry.

Dates Set for Two Texas Ginners' Meetings

Announcement was made this week by Jay C. Stilley, Dallas, executive vice-president of the Texas Cotton Ginners' Association, that dates have been determined for two of the organization's district meetings to be held this summer.

The Rio Grande Valley district (state districts 13 and 14) will meet at the Casa de Palmas Hotel at McAllen on June 15. Jack Lomax, San Benito, is president of the Valley district and is making all arrangements. Featured on a short speakers' program will be Texas' commissioner of agriculture, John C. White. There will be a banquet for ginners and their wives, given by Valley oil mills and compresses.

June 18 is the date of the Wharton-Fort Bend district (state district 10) meeting, which will be held at Sugarland, beginning at 10 a.m. R. K. Phillips of Sugarland is making the arrangements. Oil mills in the district will be hosts to the ginners at a barbecue lunch. Afterwards, the ginners will make a tour of the Sugarland Industries plant.

Field Trip Is Planned for Soybean Convention

General arrangements for the thirty-first annual convention of the American Soybean Association at Des Moines, Iowa, Sept. 6-7-8 have been announced by Secretary George M. Strayer, Hudson, Iowa. The convention is being held in Iowa, second soybean-producing state of the union, for the first time since 1943.

Convention headquarters will be Hotel Fort Des Moines. The formal business program will be held in the hotel ballroom on Thursday and Friday, Sept. 6 and 7, according to Mr. Strayer.

The program will be followed by a field trip to Iowa State College at Ames Saturday, Sept. 8. Included in the field trip will be visits to the college agronomy farm where a number of special plantings of soybeans for the occasion are being made, and to the swine nutritional research farm where some of the nation's outstanding swine feeding experiments using soybean oil meal are being carried on, Mr. Strayer said.

Exhibit space will be available to firms serving the industry.

Committee in charge of the convention includes Mr. Strayer as chairman; Howard L. Roach, Plainfield, Iowa; C. M. Gregory, Dike, Iowa; John Sand, Marcus, Iowa; and C. R. Weber, Ames, Iowa.

Returns to Active Duty

J. W. GILLESPIE, well-known Flexible Steel Lacing Company representative for Texas, Louisiana, Arkansas and Oklahoma, has been called back to active military service. Jim is a captain in the 443rd Communications Squadron of the Air Force and at present is stationed at Hensley Field, Dallas. For the present, Flexible Steel Lacing Company will keep the territory open in anticipation of Jim's return.

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AUGUSTA, GEORGIA

At Lake Murray Lodge, Ardmore

Oklahoma Crushers Meet June 4-5

■ Excellent business program, well-known speakers expected to draw excellent attendance. Crushers will meet J. D. Fleming, then new secretary-treasurer, at the convention.

The Oklahoma Cottonseed Crushers' Association has a new secretary-treasurer and members of the industry will have an opportunity to extend him a welcome when they convene at Lake Murray Lodge, near Ardmore, June 4-5 for their annual convention. He is J. D. Fleming, who went to the association May 15. Mr. Fleming formerly was cotton specialist with the Oklahoma Agricultural Extension Service at Stillwater, and succeeds the late Horace Hayden in the association office.

The Lake Murray convention will have as its first order of business a meeting of the association board of directors, which begins at 10:30 on the morning of June 4. There will be a luncheon for the ladies at 12 noon, the first day. The first day's business session will begin at 1 p.m. with an address by G. N. Irish of Muskogee, the association's president.

J. D. Fleming, the new secretary-treasurer, will report on the past year's activities following the appointment of convention committees.

Dr. Louis E. Hawkins, vice-director of the Oklahoma Agricultural Experiment Station, will discuss the prospects for growing and harvesting the state's 1951 cotton crop on the first day. "Our Interest in the 1951 Cotton Program" will be the subject of a talk by Shawnee Brown, director of Oklahoma's Extension Service.

On hand to discuss the difficulties and perplexities that accompany a controlled economy will be John F. Moloney, economist for the National Cottonseed Products Association, Memphis.

At the annual dinner-dance to be held the evening of the first day, the crushers wil meet the winning teams of 4-H Club girls in the cotton projects on which they have been working. The girls will also demonstrate their skills in this work.

There will be dancing until midnight, to the music of Jimmy Vaughan's orchestra.

The June 5 business session will open with report of the nominating and resolutions committee.

The crushers will then hear A. L. Ward of Dallas discuss the activities of the National Cottonseed Products Association's Educational Service. Mr. Ward, who is well known to members of the industry in Oklahoma, is director of this important arm of the NCPA.

The 1951 Cotton Mechanization Conference, sponsored annually by the National Cotton Council, is to be held at the Oklahoma Cotton Research Station at Chickasha on Nov. 8-9. Jack Criswell, educational specialist for the Council, will give the crushers a preview of the forthcoming conference.

The convention will come to a close with a general discussion which will include changes in the rules of the National Association and the possibility of a cottonseed support program in 1951.

Seed Certification Officials to Meet

Seed certification officials from 15 Southern states will get together in Atlanta, Ga., July 29, 30 and 31 to discuss means of bringing uniformity to certification work in the region, according to Hugh A. Inglis, president of the group and agronomist for the Georgia Agricultural Extension Service, working with the Georgia Crop Improvement Association.

Different terminology and different colored seed tags in the various states, Mr. Inglis said, have in the past caused a situation resulting in different languages between states as far as seed certification is concerned. This situation was alleviated somewhat at the first meeting last year, and 10 topics for discussion, and experts in the field to lead the talks, are expected to further remedy conditions.

Registration for the meeting, which will be held at Atlanta's Piedmont Hotel, will get under way at 4 p.m. Sunday, July 29. The formal part of the program will be held July 30, with a tour of the experiment station near Griffin to close the meeting July 31.

Headquarters of the Annual Convention of the Arkansas-Missouri Ginners' Association, Hot Springs, Arkansas, June 4-5, 1951.

For Reservations, address W. E. Chester, General Manager.

The **ARLINGTON HOTEL**

Back to the Shamrock—

Texas Crushers to Meet June 10-12

■ President J. W. Howell, Jr., A. L. Ward, T. H. Gregory, C. B. Spencer and Dr. Kenneth McFarland to make principal addresses at annual convention.

Two entertainment features, a past presidents' luncheon and a picnic supper, will open the fifty-seventh convention of the Texas Cottonseed Crushers' Association at the Shamrock Hotel, Houston, on Sunday, June 10. Business sessions will be held the following two days, June 11 and 12.

All convention activities except the annual golf tournament will take place at the Shamrock, where the association's 1949 convention was also held. The golf tournament will be held at River Oaks Country Club.

• **Registration to Begin June 9**—The registration desk will open in the Grecian Room of the headquarters hotel at 1 p.m. Saturday, June 9, and will be open from 8:30 a.m. to 6:30 p.m. June 10. It will be open from 7:30 to 9:30 a.m. June 11 and will close when the business part of the convention gets under way.

Business sessions will be held in the Emerald Room, beginning at 9:30 a.m. The Rev. Arthur Stevens Knapp, rector, Trinity Episcopal Church, Houston, will give the invocation at the opening session June 11. D. B. Denney, vice-president of the association, will respond to the address of welcome by Mayor Oscar F. Holcombe of Houston.

• **Four Speakers Are Announced**—Four major speakers who will address the Texas crushers are A. L. Ward, educational director, National Cottonseed Products Association, Dallas; C. B. Spencer, agricultural director, Texas Cottonseed Crushers' Association, Dallas; T. H. Gregory, NCPA executive vice-president, Memphis, Tenn.; and Dr. Kenneth McFarland, superintendent, public schools of Topeka, Kan.

"Cotton and Cottonseed — Community Builders" is the title of Mr. Ward's address, which he will make at the opening session June 11, immediately following the formal opening of the convention and president's address by President J. W. Howell, Jr.

Mr. Spencer will talk on "Strengthening Oilseed Crops in Your Community" at the same session, after which the meeting will adjourn for the day.

Mr. Gregory and Dr. McFarland will address the crushers at the second business session the morning of June 12. Mr. Gregory will discuss "The Cottonseed Industry—1951."

Dr. McFarland's inspirational address will be titled "Which Knew Not Joseph."

• **Ward Portrait to Be Unveiled**—A portrait of Mr. Ward which was commissioned by a number of his friends, many of them in the cottonseed crushing industry, and which will be presented to his alma mater, Texas A. & M. College, will be unveiled at the June 12 business session. The Texas crushers' association had an active part in getting the portrait painted.

The portrait committee is headed by W. L. Stangel, dean of agriculture, Texas Technological College, Lubbock, and includes G. A. Simmons, Lubbock; Rufus R. Peeples, Tehuacana; and D. W. Williams, A. & M. vice-chancellor, College Station.

Reports of association committees and officers will be made at this session, after which new officers and directors will be elected and the convention will adjourn.

• **Entertainment**—Entertainment during the convention will begin with the luncheon of the Past Presidents' Club in the Ming Room at the Shamrock at 12 noon June 10.

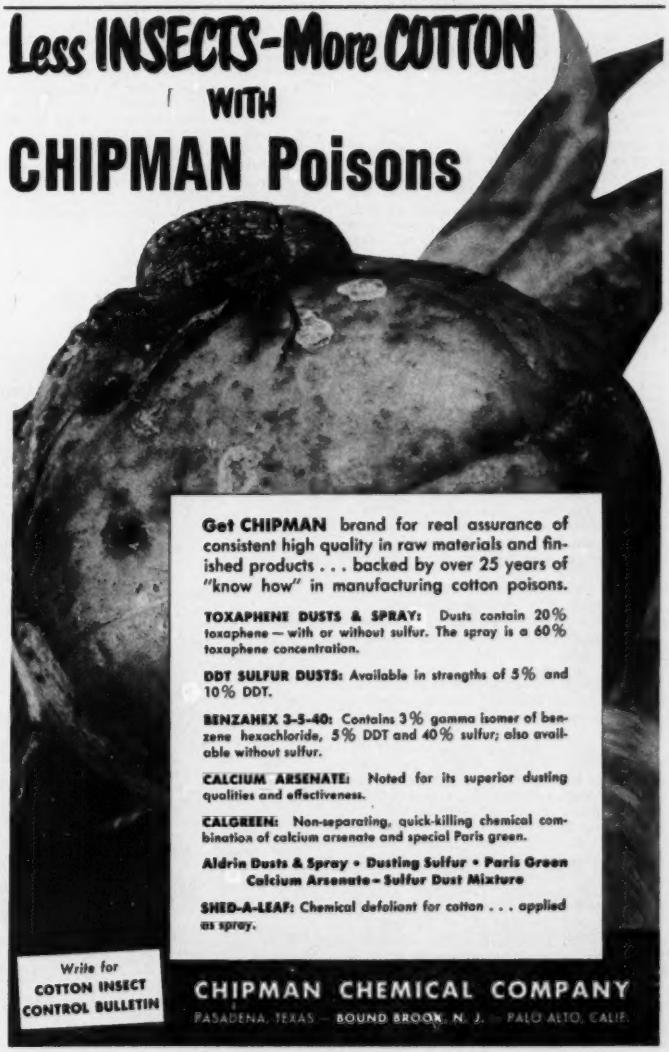
That evening a bayou picnic will be held at 7 p.m. on the terrace and around the pool at the Shamrock. Square dancing will follow the picnic supper.

On Monday a luncheon will be given in the Shamrock Room for ladies attending the convention. Jeannine Holland, 1951 Maid of Cotton, whose home is in Houston, will talk on "Selling Cotton to the World."

The annual golf tournament will begin at 2 p.m. at River Oaks Country Club.

The association's annual dinner-dance will be held in the Emerald Room at 7:30 o'clock that evening. Golf tournament awards will be presented after the dinner.

• **Officers**—Officers of the Texas Cottonseed Crushers' Association are: J. W. Howell, Jr., Bryan, president; D. B. Denney, Wolfe City, vice-president; Jack Whetstone, Dallas, secretary; Bennette Wallin, Dallas, treasurer; C. B. Spencer, Dallas, agricultural director; and Ed P. Byars, Fort Worth, traffic manager.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Oil and Protein

Content of Sunflower Seed*

By C. O. CLAGETT,[1] GEO. W. HOFFMAN[2] and INGMAR SOLLIN[2]

SUNFLOWER SEED has been grown for mercantile purposes for the past 100 years, initially in eastern European areas. Its cultivation has spread to all parts of the world, including the U.S., although production in this country has been rather limited. Prior to 1947 most of the seed grown in this country was used for feed for poultry and hogs.

Quite recently Canada has become a major producer, probably because of the need for a domestic source of edible oils. The current dwarf varieties, developed by Canadian research, are more easily harvested and in addition produce a higher yield of better quality seeds than earlier varieties.

In 1947, a Minneapolis commission house encouraged the production of these dwarf varieties in North Dakota by guaranteeing a market for the seeds at a price pegged to the flax seed value, based on oil content. This industry price support was dropped in March 1948, but in the short time it was in effect considerable interest was developed in the crop as can be seen from the following data.

Table I—Estimate by years of sunflower seed production in North Dakota. (Data from office of Agricultural Statistician, Fargo, N. D., BAE, USDA.)

Year	Acres Harvested	Yield	Total Production
		Lbs. per acre	Pounds
1947	3,500	800	2,800,000
1948	22,000	800	17,600,000
1949	10,000	750	7,500,000
1950	4,700	800	3,760,000

The average price received from the 1947 crop was seven cents per pound, or approximately 23 cents per pound of oil based on an oil content of 30 percent. Without the price guarantee, the 1948 price received for seed varied from 2.5 to 5.2 cents per pound. No figures were available on the selling price of the 1949 and 1950 crops.

North Dakota farmers need an intertilled crop in the cash grain area west of the Red River Valley to help control weeds. Sunflowers are a hardy drought resistant crop which may serve this purpose.

Whether the sunflower will become an important crop depends to a large extent on the development of markets for the seeds.

The meat of the sunflower seed is surrounded with a tough shell or hull. This hull must be removed before processing the seed, both for maximum yields of oil and to make the meal satisfactory for protein supplements.

If hulls are not removed, the meal obtained is excessively high in fiber and cannot be used as a protein supplement to poultry rations. Numerous experiments have shown that the hulls can be used for the production of furfural, a solvent used very extensively in the petroleum and synthetic rubber industry. The hulls have also been pressed into molded fireplace logs. The hulls constitute 36 to 46 percent of the weight of the seed.

Sunflower Seed Oil

After the hulls are removed the oil can be satisfactorily expressed or extracted in the same type of mills used now for the removal of linseed oil and soybean oil.

The oil has a pale yellow color, a mild taste and a pleasant odor. It is used principally as an edible oil and should be quite desirable as a salad oil because of its stability and flavor retention. We have had samples exposed to laboratory temperatures for a period of three years with no apparent development of rancidity or off flavors. Furthermore, there was no detectable change in the chemical composition of the oil.

The composition of the oil is similar to that of corn oil or cottonseed oil. It differs in that it contains less of the unsaturated fatty acids and a higher linoleic acid content. It contains essentially no linolenic acid. Linoleic acid is characterized by its solubility at room temperature as compared with stearic which is solid. It contains two points of unsaturation. Linolenic acid contains three points of unsaturation. Linolenic acid is one of the chief constituents of linseed oil, and is the big factor in the film forming or drying quality of linseed oil.

Sunflower seed oil would be classed as a semi-drying oil. Film formation can be expected if sufficient drying time is permitted. By modification of the oil it should be possible to prepare alkid resins with favorable properties for indoor coatings where yellowing is a factor.

Numerous investigations of the fatty acid content of the oil have been made. As might be expected the analyses varied considerably with the source of the seed and the variety of seed used. Table II lists analyses of some sunflower seed oils reported in the literature.

From this table it is seen that the analyses of oils from seed (Sunrise variety) grown in North Dakota differ appreciably from values previously reported for this country. The values reported by Jamieson and Baughman (3) were based on Mammoth Russian variety. Milner *et. al.* (6) reported averages for four varieties (Mennonite, Sunrise, Greystripe, and Manchurian) grown at seven stations as far north as Ames, Iowa, which were in agreement with the values of the Missouri seed of Jamieson.

The values obtained for the North Dakota crop are quite similar to the values reported for the South Rhodesia crop.

In order to determine whether the values for linoleic acid found in the Sunrise varieties were characteristic of North Dakota grown seeds in general, a number of additional samples were examined for this one component. A detailed analysis of a large number of oils is not feasible because of the time and cost factors involved. However, by use of spectrophotometric methods it is fairly simple to determine the major component, linoleic acid, and at the same time determine the presence or absence of linolenic acid. We examined a number of samples from field grown crops and of seeds obtained from the Fargo experimental plots. Six samples of seeds from field crops or oil obtained from commercial sources pressed from seeds grown in this area contained 72 to 75 percent linoleic acid. Oil from seeds grown in the experimental plots showed a lower content (55 to 68 percent). Immaturity of the seed at the time of harvest may have been a factor in these low values.

Many vegetable oils show a precipitation or separating out of certain components on long refrigeration. Even highly unsaturated linseed oil shows this property. None of the samples of sunflower seed oil thus far examined has shown any separation.

Sunflower seed oil should find a ready place in the food trade because of the stability of the oil to development of rancidity. It should also find a market in the protective coatings field where an oil of uniform composition is desired by paint and varnish manufacturers.

Sunflower Seed Proteins

After the extraction of the oil from the dehulled seeds a protein rich residue or meal remains. This meal has been studied by a number of laboratories both from the standpoint of the use of the meal as a livestock protein supplement and as a source of industrial proteins.

In protein content sunflower seed meal tops the list of vegetable concentrates, having around 52.5 percent. If the kernels are completely dehulled it is comparatively low in crude fibre and for a concentrate of plant origin it is unusually rich in calcium and phosphorus. It is an excellent source of thiamin or vitamin B^1 and niacin and for a plant concentrate it is comparatively rich in riboflavin. There are some indications that the riboflavin as indicated in chemical analyses is not all available for growth of the animal.

The quality of the protein of the sunflower seed meal has been checked by laboratories using as experiment animals the white rat, poultry and swine. Experiments indicated that the protein in defatted meal was very digestible. Biological value was 64.5 percent. This places sunflower seed protein in the same class as wheat and definitely superior to raw soybean protein and corn protein. Experimental work at the University of California showed that sunflower seed

Table II—Comparison of analyses of sunflower seed oils from various parts of the world (percentage of fatty acids by weight.)

Habitat	Saturated fats	Oleic	Linoleic	Higher Fatty Acids
India (1)	9.73	49.41	40.48	—
Congo (1)	5.3	42.0	52.0	0.7
North China (2)	8.3	37.4	53.6	0.4
Russia (1)	9.6	36.2	54.2	—
Missouri (U.S.A.) (3)	6.4	34.1	58.5	1.0
Kenya (4)	14	17	69	—
S. Rhodesia (4)	14	14	72	—
North Dakota (5)	11.7	14.1	72.8	1.4

*Reprinted from Bimonthly Bulletin of the North Dakota Agricultural Experiment Station, March-April, 1951.

[1] Agricultural chemist, North Dakota Agricultural College.

[2] Graduate student in School of Chemical Technology, North Dakota Agricultural College.

Table III—*Sunflower seed meal: composition compared with other high protein feeds and with flour.

	Crude Protein %	Calcium %	Phosphorus %	Vitamins per Pound (Vit. B¹) Thiamin mg.	Ribo-flavin mg.	Niacin mg.
Sunflower Seed Meal	52.8	.57	.58	16.5	2.2	136
Cottonseed Meal	43.7	.33	.77	2.0	6.7	18
Linseed Meal	40.4	.18	1.15	5.8	2.8	22
Corn Gluten Meal	43.0	.10	.47	—	.4	14
Wheat Flour, Patent	10.8	.02	.09	.07	.03	0.8
Wheat Flour, Whole	13.0	.04	.38	.56	.12	5.6

*Data from University of Illinois, Ag. Exp. Station, Circ. 608 (1947).

meal as a supplement to laying mash was equally as effective as heat treated soybean meal from the standpoint of average egg production and mortality in the flock. The Missouri Agricultural Experiment Station found that sunflower seed meal fed with corn replaced tankage in swine production with no loss of effectiveness of the ration. The Illinois Agricultural Experiment Station obtained similar results in paired feeding trials.

The home economics department at the University of Illinois also conducted some interesting experiments on the use of sunflower seed flour for human consumption. They tested sunflower seed flour additions to plain, spice and chocolate cakes and in griddle cakes, muffins and yeast rolls, in each case replacing a part of the white patent flour with the sunflower seed flour. In their experiments, sunflower seed flour was a finely divided sample of sunflower seed meal prepared from completely dehulled solvent extracted meats or kernels. Many of the products containing 10 percent of sunflower seed flour were reported as being delicious.

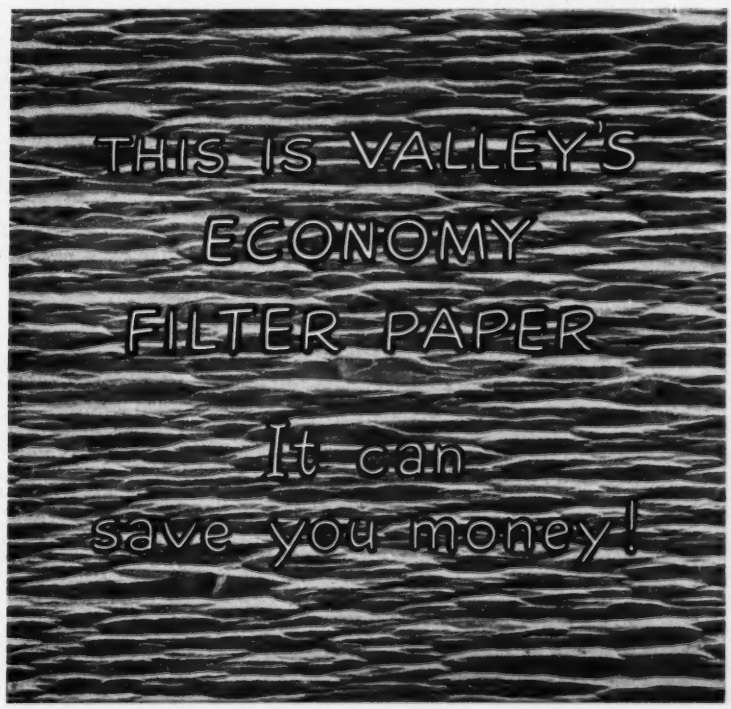
It could not be used successfully in light colored products as the addition of sunflower seed meal developed a gray cast. Dark colored products would completely mask this gray cast. The gray color in these products is known to be due to the oxidation of a rather complex organic component called chlorogenic acid found in the kernel. The use of sunflower seed flour certainly increased the protein and vitamin content of baked products. The Illinois experimenters report added flavor, increased loaf volume and a richer brown crust color.

Smith and Johnsen (7) recently investigated sunflower seed meal from the standpoint of the industrial utilization of the protein fraction. They found that the protein could be dispersed very readily with dilute alkali and precipitated by the addition of acids. The resulting proteins had an objectionable dark color which could not be removed by extraction with alcohol or similar solvents. The color of the proteins is caused by the oxidation of chlorogenic acid, mentioned above. Work in the agricultural chemical laboratory at North Dakota Agricultural College has shown that this color formation can be prevented by the addition of small quantities of sodium sulphite to the dispersing medium. Furthermore the resulting protein could be redispersed following precipitation and drying without formation of color. Apparently sufficient sodium sulphite is absorbed to the precipitated protein to prevent oxidation of chlorogenic acid in the redispersed protein.

Proteins have been used industrially for the preparation of adhesives or glues. Bone, hide and casein glues have been used very extensively since earliest recorded history. Recently plant proteins, particularly soybean proteins, have been used in the preparation of adhesives. Many thousands of tons are used for this purpose yearly.

From time to time proteins have been suggested as components for preparation of plastics. Casein from milk has been used quite extensively. In the middle thirty's, soybean proteins were suggested for use and have been used rather successfully in the production of some plastics. An interesting example is the use made by the Ford Motor Company for the preparation of decorative trims during that period. Proteins have also been used quite extensively in the preparation of coatings and facings for paper. Approximately 75 percent of the casein produced in America is used for this purpose. A number of synthetic fibers have been produced from plant proteins. However, none of these has been generally accepted as a substitute for wool or the other synthetic fibers of the nylon or similar types.

Sunflower seed proteins may have



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properties which would enable them to compete with other proteins in the preparation of these industrial products.

Bibliography

(1) Singh and Kumar, Proc. Indian Acad. Sci., *26A*, 205 (1947).

(2) Ueno and Wan, J. Agr. Chem. Soc. Japan, *17*, 735 (1943), cf. C. A., *43*, 882 (1949).

(3) Jamieson and Baughman, J. Am. Chem. Soc., *44*, 2952 (1922).

(4) Hilditch, J. Oil and Colour Chemists Assoc., *32*, 5 (1949), cf. C. A. *43*, 4025 (1949).

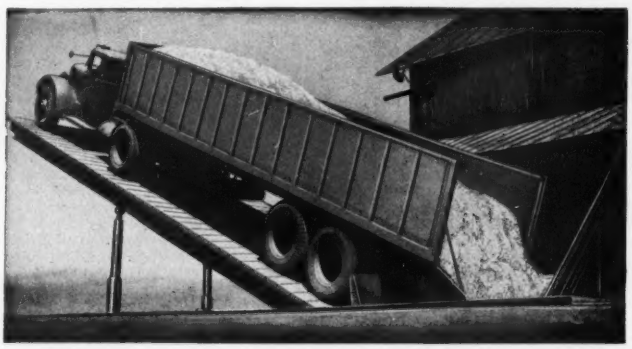
(5) Ingmar Sollin, The Component Fatty Acids of the Oil From a North Dakota Sample of *Helianthus annus L.*, Master's Thesis, Department of Agricultural Chemistry, Agricultural College, 1949.

(6) Milner, Hubbard and Wiele, Oil and Soap, *22*, 304 (1945).

(7) Smith and Johnsen, Cereal Chem., *25*, 399 (1948).

Mill Employee Is Killed In Accident May 18

Frank Kinkaid, 34, assistant day superintendent for the Sunflower Cotton Oil Co., Indianola, Miss., was killed instantly when he became entangled in a driveshaft belt at the mill May 18. He had been with the mill two months. Survivors include his wife and four children.



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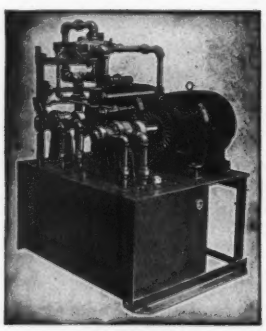

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World Production:

Flaxseed Outturn Is Smallest in Years

World flaxseed production in 1950 is now estimated at 133,520,000 bushels, the smallest outturn since 1947, according to data available to USDA's Office of Foreign Agricultural Relations.

The crop was down from 1949 by 7.2 million bushels but was practically the same as the 1935-39 average. Decreases in the harvests in the U. S., Argentina, and India, which together represented almost 60 percent of the 1950 total, accounted for more than the decline in world production from the previous year.

• **Canada** — Canada harvested 4,540,000 bushels of flaxseed from 547,000 acres last year. This was almost double the short crop of 1949 but represented only one-fourth of the record high of 1948. Acreage increased considerably under the stimulus of high prices and a strong demand. Production, however, failed to reach expectations because of heavy frost damage in the Prairie Provinces.

The outlook for 1951 flaxseed production in Canada promises a substantial increase in acreage. It is believed generally that at least one million acres will be planted to flax in 1951. On the basis of the long-term average yield this would produce a crop of 7.5 million bushels.

• **Mexico**—The Mexican crop, estimated unofficially at 1,417,000 bushels, was less by some 560,000 bushels than the previous year's output.

• **United States**—Last year's flaxseed production in the U. S. — 39,263,000 bushels—was the lowest since 1946 and 15 million bushels less than the record output of 1948. The crop was harvested from 3,893,000 acres, 21 percent less than in 1949 but well above the prewar average. The U. S. has replaced Argentina as the leading flaxseed producer since 1947.

Prospective acreage for 1951 flaxseed is estimated at 3,921,000 acres, a decrease of four percent from last year's planted area. With yields by states equal to those for the 1945-49 period the prospective acreage would produce a crop of about 36 million bushels.

• **Europe**—Smaller crops in many of the European countries, excluding the Soviet Union, reduced the over-all total by an estimated 1.3 million bushels from the comparatively high outturn of 1949. The most significant decreases occurred in Sweden and the United Kingdom. Flaxseed production reportedly increased considerably in the Soviet Union.

• **Asia** — Turkey's crop of 1.1 million bushels represented a decrease of one-fifth from 1949 and one-fourth from the record high of 1948.

India reported a harvest of 16,520,000 bushels from 3,712,000 acres, or 400,000 bushels less than in the previous year and 1.6 million less than prewar.

• **South America**—Argentina's flaxseed production estimate has again been revised downward—to about 22.6 million bushels compared with 26.6 million a year earlier and 59.6 million on the average during the prewar period. Abandon-

ment was unusually heavy and only two million acres were harvested against 2.4 million in 1949 and 6.1 million prewar.

The 1950 acreage was the smallest harvested in Argentina since that country first became a major flaxseed producer. Losses in 1950 were attributed to late frosts, excessive rains, and hot drying winds during the flowering period.

Production in Brazil increased from 900,000 bushels in 1949 to 1.3 million bushels in 1950. In Uruguay 3.9 million bushels were harvested from 396,000 planted acres. This was an increase of one million bushels from 1949, but slightly less than the 1935-39 average output.

Chile's crop of 167,000 bushels was only slightly larger than the previous year's but over four times the prewar average. The sharply higher prices of flaxseed, linseed oil and flax fiber during the latter half of 1950 encouraged growers to increase their plantings.

• **Africa** — Africa's flaxseed production (partially estimated) dropped to 2.4 million bushels last year after reaching a high of 5.6 million in 1949. Egypt's harvest amounted to only 59,000 bushels from 5,000 acres compared with 409,000 bushels from 21,000 acres in 1949. Acreage was curtailed because of heavy stocks of linseed oil.

The sharp decrease in the French Colonies resulted primarily from reductions in or removals of price support and from unfavorable weather. In Algeria acreage decreased from 235,000 in 1949 to only 38,000 last year and production from 749,000 bushels to 232,000. In French Morocco plantings dropped from 319,000 to 99,000 acres and production from 2,385,000 bushels to 423,000. Area in Tunisia declined from 148,000 to 32,000 acres and yield from 839,000 to 205,000 bushels.

Ethiopia apparently produced a sizeable quantity of flaxseed in 1950 as the volume available for export in 1951 was reported at 1,300,000 bushels.

First Hoblitzelle Award Winners Are Announced

Dr. C. E. Marshall, English-born soil chemist on the staff of the College of Agriculture of the University of Missouri, and Russell N. Cash, Atlanta, Texas, dirt farmer, received the Hoblitzelle National Award in the Agricultural Sciences and the Hoblitzelle Achievement Award for the Advancement of Texas Rural Life, respectively, at the annual open house held at the Texas Research Foundation, Renner, May 16.

Each award, made this year for the first time, carries a stipend of $5,000 and a gold medal. Dr. Marshall was recognized for his work in measuring the action of plant food chemicals as they enter the roots of growing plants. He has shown that the speed of the movement of food items away from the soil clays and into the plant roots is influenced more by the other types of food elements present than by the total amount of the food supply present in the soil.

"This research," said Karl Hoblitzelle, president of the foundation and donor of the awards, "suggests that we are now on the way to controlling the feeding habits of plants. Through different diets we may be able to emphasize the production by a plant of carbohydrates or proteins much in the same way that we now are able to balance an animal's rationing for the fattening of an old one or to push the growth of a young one."

Mr. Cash was honored for his use of scientific agriculture to produce fabulous yields on his 440-acre farm in the worn-out, sandy soil of Cass County in East Texas and for his work in preaching soil conservation to more than 12,000 farmers and businessmen in East Texas during the last two years. For the last 10 years he has averaged 65 bushels of corn an acre in a county whose average corn production is only 10 or 12 bushels an acre, and has grown as much as 133 bushels to the acre at a cost of 18 cents a bushel. He has grown as much as 800 bushels of sweet potatoes to the acre, and averaged 300 bushels, in a county with a 65-bushel average.

R. R. Becke to Direct Tung Oil Association

Roland R. Becke, Chicago, Ill., operator of tung orchards in Pearl River County, Miss., has been named executive secretary of the American Tung Oil Association by the board of directors to succeed W. W. Kilby, Poplarville, Miss., who has resigned to devote full time to tung research at the Mississippi Experiment Station.

Marc Anthony Heads Cotton Compress Association

Marc Anthony, Dallas, was elected president of the National Cotton Compress and Cotton Warehouse Association at its annual convention in Asheville, N. C., May 16.

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World Report:

1950-51 Cotton Crop Estimate Goes Up

World cotton production in 1950-51 is now estimated at 27,520,000 bales (of 500 pounds gross) compared with the last previous estimate of 27,350,000 bales and a revised estimate of 31,330,000 bales for 1949-50. An upward revision in the U.S. figure for 1950-51 accounted for 128,000 of the 170,000 increase in the world total.

The U.S. crop of 10,012,000 bales is below the 1949-50 crop by 6,116,000 bales or 38 percent, while foreign production increased by 2.3 million or 15 percent above the 1949-50 estimate of 15.2 million bales.

Foreign production as a whole increased about 2.3 million bales with .8 million of the estimated increase in China and .6 million in the Soviet Union. Estimates for both of these countries are based on incomplete information. The remaining .9 million-bale increase in foreign production was accounted for mainly by India with 350,000; Mexico, 213,000; Pakistan, 168,000; and Brazil, 150,000. Greater percentage increases were reported from many smaller producing countries such as Syria, Turkey, Anglo-Egyptian Sudan, Greece and Iraq but they were largely offset by decreases in Argentina, Egypt, Belgian Congo and a few others. Yields were generally down this year in Southern Hemisphere countries, both in South America and Africa.

Cotton price increases in 1950 occurred too late in the year to be fully reflected in acreage increases in Northern Hemisphere countries in 1950-51. Acreage increases in Southern Hemisphere countries, especially Brazil and Argentina, were offset by excessive rains and heavy insect infestation.

The current high world prices for cotton no doubt will be reflected in sharp acreage increases in a large number of small producing countries but increases in India, Pakistan, Peru and several minor producing areas will be limited by food production programs. Mexican growers in the important Matamoros District got a poor start for the 1951-52 crop because of an extended drought that was not broken until about a month after the beginning of the planting season. It is too early to estimate the 1951-52 cotton crops in the Southern Hemisphere which will not be planted until after September 1951, but no major increases are foreseen.

World production of 27.5 million bales in 1950-51 was approximately 5.5 million bales less than estimated world consumption during the same period. World production and world consumption should be much more nearly in balance in 1951-52. Assuming continuation of consumption at or near the 1950-51 level of about 33 million bales and adding prospective foreign production of 18 to 19 million bales of the U.S. production goal figure of 16 million bales, it appears that world production should be slightly higher than consumption in 1951-52. However, any prospective excess in production over consumption will be needed to rebuild abnormally low stocks expected in practically all countries by the end of the current season (July 31). If production in the U.S. falls below the 16 million-bale goal, the small prospective margin of world production over consumption would be reduced accordingly or eliminated.

Dr. Omer Herrmann Joins Embassy Staff in Paris

The U.S. Department of Agriculture has announced that Dr. Omer W. Herrmann has been appointed by the Department of State to head the agricultural work at the American Embassy in Paris. He will report in Washington for his new duties June 1, leaving for Paris about June 13.

Dr. Herrmann has been assistant administrator of the Agricultural Research Administration since 1947. In that position he was directly responsible for research program development and coordination in the department, and played a leading role in the development of the programs and in the work with commodity and functional advisory committees under the Research and Marketing Act.

In the U.S. Foreign Service, Dr. Herrmann will represent in France the broad interests of U.S. agriculture with particular reference to the effect on the American farmer of trends in agricultural production and demand, market outlets for agricultural products, and French agricultural policy.

Pickers Go to California

A number of Carolinas cotton farmers are shipping mechanical pickers to California this year.

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Southern Livestock Bonanza

■ When it comes to livestock production in the South, say the scientists, you ain't seen nothin' yet. The researchers believe that a 3-fold increase is possible in the already profitable livestock industry of the South. The road to these growing riches will be paved with better forage grasses, including warm-weather grass high in nutritive value; better plants for seasonal pastures to permit year-around grazing; new deep-rooted legumes, and perennial legumes for poor-drainage areas where deep-rooted crops won't grow.

Fat Folks Suffer Most

■ Fat people not only are subject to more ills and die younger than slimmer persons, but they have more accidents, according to the Northwestern National Life Insurance Company. Overweight people fall down and injure themselves more frequently, suffer more heart disease, kidney trouble, cancer, and diabetes than those of normal weight. High blood pressure is about 3 times more common among the fat than the lean.

Hybrid Cotton Is in the Cards

■ Hybrid cotton is not just around the corner, but it is in the cards. Geneticists working at the task point out that discovery of male-sterile cotton plants has opened the way for field crossing, as in the case of onions. Crosses made experimentally provide good evidence that substantial gains in vigor and yield of cotton are possible through hybridization.

New Uses for Electricity

■ Research on electric power is turning up some interesting new possibilities. Experiments are being carried out in the South, for example, looking toward curing of tobacco with electricity. New methods of drying hay with electric power also are being studied in the South. USDA scientists and others have found evidence that it may be possible to increase egg production and hasten growth of chicks through use of bactericidal lamps.

Average Male Owns 1.95 Year-Around Suits

■ American men own 1.95 so-called winter suits, says the USDA's Bureau of Agricultural Economics. Median price of suits bought in the last couple of years, a BAE survey showed, has been about $50, compared with $42.50 five years ago. One in 10 men don't have a year-round suit, and 50 percent of them are owned by 18 percent of the male population.

Vitamin Pills Don't Make a Meal

■ Vitamin pills and treatments can be most helpful in fighting specific diet troubles and disease—but they are *not* a substitute for a good meal. There are probably more unknown than known vitamins in the food we eat. Therefore, substitution of vitamins for balanced meals can result in elimination from the diet of vital elements of which science knows nothing. Over-processing of foods also can be harmful, since it may mean elimination of unknown nutrients that are vital for a good diet.

Rubber Fields in Texas

■ Intense research is under way for a home-grown strain of rubber to prevent the kind of shortages that occurred during World War II. The answer could be the rubber plant *guayule* now being grown experimentally by the Texas Agricultural Experiment Station. The Station is running tests to determine the reaction of the rubber plant to different soils and climates. It is thought that guayule may be a profitable crop that can be grown in quantity in low-rainfall areas. New strains of guayule yield 25 to 40 percent more rubber than the varieties grown during the late war.

More Castor Beans Urged in Southwest

■ Researchers are working hard to find better ways of growing more castor beans, especially in Texas, Oklahoma, and Arkansas. Big reason is an increasing demand for castor oil in plastics, hydraulic brakes, and other products that would be important in case of war.

10 Man Hours to Produce A Bale of Cotton?

■ Only 10 man hours would be required to produce a bale of cotton, say USDA research statisticians, if production were wholly mechanized and all hand work eliminated. The figures are based on studies made in the Mississippi Delta which indicate that use of tractor-drawn equipment and a mechanical harvester reduces from 155 to 45 the man-hours required to produce one bale of cotton. Addition of a rotary hoe, along with a flame cultivator, brings the figure down to 30 man-hours. As other machinery is added the amazingly low 10-hour figure would be reached, say the statisticians.

Weed Costs Second Only to Erosion

■ Money losses due to weeds are greater than for any single crop hazard other than that of soil erosion, say researchers at the USDA's big experiment center in Beltsville, Md. Approximately half of the cost involved in tillage, they claim, can be attributed to weed pests.

Disappearing Cotton Yarn

■ Cotton yarn made soluble by a special chemical treatment has been developed at the Agriculture Department's Southern Regional Research Laboratory in New Orleans. The disappearing yarn, which dissolves in water, will be useful for weaving open-work fabrics and other special textiles.

Milk from Coin Machines

■ Coin machines that yield milk may be the answer to junior's over-indulgence of soda pop. Researchers who have been experimenting with the vending devices say that they increase milk consumption. The milk, both plain and chocolate, is served up in half-pint paper cartons.

Fresh Water from Salt Water

■ Discovery of an economical method of freshening salt water would be a boon to all of mankind, a point being emphasized this year by severe drought in many areas of the country. In asking for a demonstration plant to bring down the cost of converting salt water into fresh water, Interior Secretary Oscar Chapman says: "I believe that a $25 million plant will give us the answer within five years and that is a cheap price to pay."

Soybeans Are Recommended For Mississippi Farms

Last year Mississippi farmers produced more than six million bushels of soybeans that increased the farm income of the state by more than 15 million dollars. The average yield was 24 bushels to the acre, the Mississippi Extension Service has announced.

Well suited for production in Mississippi from a standpoint of soil and climatic conditions, the soybean is fairly free from disease, fits well into balanced land use, is a good soil builder and can be produced and harvested almost entirely by mechanical methods, the Extension Service pointed out. Net returns from soybeans per acre compare favorably with those from cotton.

Little or no fertilizer is required in the Delta. In the hill area 200 to 300 pounds of 5-10-5 with 200 to 300 pounds of basic slag to the acre is recommended by the service. Efficient and clean harvesting is essential for maximum prices and economical returns as most soybeans are sold on the basis of U. S. grades.

Edd Bolivar? We Don't Know Him, Either

Editor's Advancing Years Causes Big Mental Lapse and Gives Tennessee's Edd Knox Boyd a Fictitious Name

THERE ARE TIMES in these topsy-turvy days when we go home nights and are not sure we've been there before. At others we hardly know our own name, what with world conditions being so snarled up and a little dab of vittles costing just about half as much as we used to pay for a good suit of clothes.

What we're leading up to is the error the editor made on page 28 of the May 12 issue of this publication. In writing the headline for the story about the recent Tennessee ginners' convention he said, "Edd Bolivar Heads Tennessee Ginners." Well, there just isn't any such ginner in the whole state of Tennessee. The new president of the ginners' association in that state is Edd Knox *Boyd*, and he *lives* at Bolivar.

We've tried to place the blame on world conditions and other minor headaches, but the folks here in the office—who are seldom wrong in such matters—say it's our advancing years that causes these things. Maybe so, but we hope Edd Boyd is a little more charitable and accepts the editor's version.

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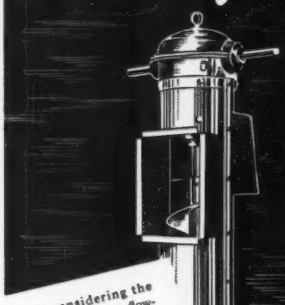

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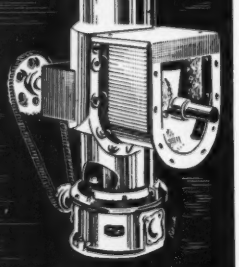

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(Continued from Page 17)

Calif., replacing H. S. Baker, Fresno, Calif.; Georgia—U. F. Stewart, Savannah, replacing J. T. Preston, Monroe; Louisiana—C. W. Wallace, West Monroe, reelected; Mississippi— A. K. Shaifer, Clarksdale, reelected; North Carolina and Virginia—W. T. Melvin, Rocky Mount, N. C., replacing L. M. Upchurch, Raeford, N. C.; Oklahoma—A. L. Durand, Chickasha, reelected; South Carolina—E. H. Lawton, Hartsville, reelected; Tennessee, Kentucky, Missouri and Illinois — P. T. Pinckney, Tiptonville, Tenn., replacing R. H. Patterson, Trenton, Tenn.; Texas and New Mexico—Joe Flaig, Dallas, reelected; F. Earl Davis, Harlingen, Texas, reelected; S. J. Vaughan, Jr., Hillsboro, Texas, reelected; Ben R. Barbee, Abilene, Texas, replacing Dupuy Bateman, Jr., Houston; At Large—W. H. Knapp, Cincinnati, Ohio, reelected; W. F. Guinee, New Orleans, reelected; C. T. Prindeville, Chicago, reelected; Ex Officio—W. D. Lowe, Jackson, Miss., past president.

Stocks of Soybeans as of April 1 Set Record High

Soybean stocks of nearly 142 million bushels in all storage positions on April 1 are indicated by reports assembled by USDA's Bureau of Agricultural Economics. Not only are such stocks about a sixth larger than on April 1, 1950, but they are also the largest for the date in the nine years of comparable record, despite a record rate of use by processors.

Among the reports assembled to obtain the current stocks total are those of the Crop Reporting Board, estimating over 46 million bushels remaining on farms and over 20 million bushels at interior mills, elevators and warehouses. Farm stocks were slightly larger than a year earlier, and were exceeded on April 1 only in 1943 and 1949. Stocks at interior mills, elevators and warehouses were larger than usual, having been exceeded on April 1 only in 1945. Also included are 12½ million bushels of commercial stocks at terminals, as reported by the Production and Marketing Administration, well within the usual range for that position. The largest portion is the 63 million bushels at processing plants, as reported to the Bureau of the Census, a quantity much larger than on any other April 1.

Disappearance from the estimated supply of 290 million bushels on October 1, 1950, is thus estimated at over 148 million bushels. However, reports of the Bureau of the Census indicate about 139.3 million bushels processed, in addition to which there were exports of nearly 16 million bushels and a small quantity used for feed and other purposes. Thus an unexplained discrepancy is still apparent, but is much smaller than indicated by the report as of Jan. 1, 1951.

Textile Consumption Survey:

SOUTHERN LAB STUDIES USAGE OF ALL TEXTILE FIBERS IN U.S.

How much does the consumption of cotton and other textile fibers in the U.S. increase or decrease from year to year? This question is answered in a statistical survey, covering 56 years of textile consumption in the U.S., which has been made at the Bureau of Agricultural and Industrial Chemistry's Southern Regional Research Laboratory in New Orleans, La.

Cotton consumption fluctuated from year to year but cotton is still used more than wool, silk, flax, rayon and all other fibers combined. Rayon and other synthetic fibers reached all-time peaks during the past five years.

The survey, which is part of a study made by the Southern Laboratory in connection with its research on cotton utilization, provides a convenient and comprehensive reference source on the competitive position and the relative importance of all the different fibers produced, processed, exported, imported and consumed in the U.S. Such data are of value to growers and handlers of fibers and to students of production and consumption trends.

This present survey brings up to date similar data published by the Southern Regional Research Laboratory in 1941 and 1948. The data are presented from two viewpoints: (1) On the basis of quantities of raw fibers consumed or processed in domestic textile mills, and (2) on the basis of fiber used by ultimate consumers in the U.S.; that is, of quantities of fibers eventually disappearing within the country.

This survey is Statistical Bulletin No. 89, **Trends in the Consumption of Fibers in the United States 1892-1948**, by Barkley Meadows. It may be obtained by writing the Southern Regional Research Laboratory, 2100 Robert E. Lee Boulevard, New Orleans 19, La.

Farm Storage Facility Loan Program Is Extended

Extension of the Commodity Credit Corporation program providing loans to farmers to finance the construction or purchase of new farm storage facilities for grains and certain other storable crops has been announced by Secretary of Agriculture Charles F. Brannan. The original loan program, initiated in June 1949 and scheduled to expire June 30, 1951, has been extended through June 30, 1952.

The loan program is available to producers of soybeans, peanuts, cottonseed, flaxseed and various grains. Loans are made, up to 85 percent of the cost of the structure, to any owner-operator, tenant, landlord or partnership of producers wishing to erect a facility which will meet requirements for eligible storage under the price support program. The loans are payable in five annual installments, or earlier at the option of the borrower. Interest on loans is at the rate of four percent per year.

As of April 30, 1951, loans totaling approximately $23,400,000 had been approved for farm storage structures having an aggregate capacity of over 85,000,000 bushels.

Rain Cuts Paraguayan Crop

Unusually heavy rainfall in February and March in Paraguay may reduce the 1950-51 cotton crop (now being picked) by as much as 40 percent. Previous estimates, which placed the crop at around 63,000 bales (500 pounds gross weight), have now been reduced to about 37,000 bales. Production in 1949-50 totaled 66,000 bales. Excessive rain also lowered the quality of the cotton harvested.

Argentina's Oilseed Outlook for 1951

• **Flaxseed**—The 1950-51 flaxseed harvest in Argentina is now estimated by trade sources at between 22 million and 24 million bushels, somewhat below the forecast last January of 24.6 million bushels, but still above the government's early forecast of 21 million bushels.

Crushers have bid actively for flaxseed so far this year, paying higher than the official price and thus obtaining the major portion of the crop. The quantity available to crushers is considered not over 15.7 million bushels in view of existing commitments for export of flaxseed. Operations at crushing plants currently are near the seasonal peak but will decline after mid-year. Total production of linseed oil in 1951 is expected to be a maximum of 150,000 short tons.

Sales of flaxseed and linseed oil in foreign markets will be relatively small during the rest of 1951 since most of the exportable supplies are already committed. Carryouts of flaxseed and linseed oil at the end of the year will be at a low level, and if exports are to be maintained at this year's rate in 1952, the plantings for the coming crop will have to be about double the 2.7 million acres planted last season. Trade circles believe that an increase to 3.7 million acres may be achieved, but regard anything more as being most unlikely. A reduction in exports of these commodities therefore appears inevitable for 1952.

• **Sunflower Seed**—Much sunflower seed was planted late this year, including some near the end of January with no official reports being yet available on total area. Trade estimates are between four and 4.4 million acres. The best evidence appears to support the higher figure, roughly equivalent to the previous record achieved in 1948-49.

Early crops are now being harvested with yields generally above 625 pounds per acre. Late plantings to be harvested in May have been held back by cold weather, and with early frosts now possible, there is considerable doubt as to the ultimate yield. Assuming, however, that there is no exceptional loss, the production this year may be 1.1 to 1.2 million tons.

Virtually no old-crop sunflower seed was carried over into the new crushing year which began on April 1. The entire sunflower seed crop, less about 33,000 tons for seed and shrinkage, will be purchased rapidly by crushers this year. If 1.2 million tons are harvested, the oil equivalent could be about 308,000 tons. This would compare with 660,000 tons of sunflower seed crushed in the past season, producing about 172,000 tons of oil. Domestic requirements are considered near 175,000 tons annually, leaving potentially about 133,000 tons for exportation.

• **Peanuts**—Trade sources are uncertain with respect to area planted to peanuts this season, but apparently there may be a slight increase above last season's 250,000 acres. Growing conditions have been reasonably good, making possible a crop of 77,000 tons or more, shelled basis (115,500 unshelled). This would be a considerable improvement over the poor crop of 1949-50, which was only about 81,000 tons, unshelled basis.

Allowing 22,000 tons for seed, shrinkage, and edible use, the crushing availability this year may be 55,000 tons, equivalent to 18,700 tons of peanut oil. Only a small portion of this oil ordinarily is available for export since local demand is strong, particularly for blending.

• **Cottonseed** — Area in cotton is estimated officially at 1,249,000 acres, slightly more than the 1,206,350 acres cultivated last season, but production is expected to be less because of cool weather and excessive rains. Total seed output is forecast currently at 240,000 tons, of which 220,000 tons may be available for crushing. This would be equivalent to 24,000 tons of oil. About 11,000 tons are used locally and the balance is considered exportable.

• **Other Oilseeds**—About 6,000 tons of miscellaneous other edible oils are produced annually in Argentina, including 3,000 to 4,000 tons of olive oil, 1,500 of corn oil and 1,000 of rapeseed oil. Practically all of these are used domestically.

Output of all edible oils in the crushing year beginning April 1 is forecast at 358,000 tons, of which 210,000 tons may be used domestically. The probable export surplus is indicated therefore at 148,000 tons, largely sunflower seed oil but including also moderate quantities of cottonseed and other oils.

• **Cakes and Meals**—If 1951 crushing is in line with the above estimates, the equivalent production of oilcakes and meals can be calculated at approximately 880,000 tons. Stocks at the beginning of the year were negligible, having been depleted by large exports and increased local use during 1950.

USDA Consolidates Work on Pest Control Equipment

Consolidation of all work on adaptation and utilization of aircraft and other special equipment for agricultural pest control in the Bureau of Entomology and Plant Quarantine has been announced by USDA.

This consolidation combines work formerly done at a number of the bureau's different field stations. It will be directed by Kenneth Messenger from the bureau's newly established Aircraft and Special Equipment Center, Oklahoma City, Okla. Mr. Messenger is a long-time employee of the bureau.

California Farm Labor Problem a Serious One

Agricultural labor for harvesting the 1951 cotton crop in California will be in shorter supply than in many years, employment officals say, and growers anticipate an extension of the harvest well into 1952.

It is estimated that not more than 60,000 to 70,000 imported laborers will be available this year and California, the employment officals believe, can hope to get only from 10,000 to 25,000 of them. Estimates place the number of farm workers needed at the peak of the fall harvest at about 250,000. It is said that at least 100,000 workers will be needed to harvest the cotton crop.

California doesn't expect to get as many out-of-state farm workers this year as it normally does, and is losing much of its own supply to new expanding defense projects.

Any importation of farm workers to this country from Puerto Rico and the Bahamas could not be expected to be of much help in California, but the state might get some workers from Hawaii. However, they could not be obtained in sufficient quantity to solve the aggravating agricultural labor problem, officials say.

Texas State Fair Offers More Livestock Prizes

The 1951 State Fair of Texas Oct. 6-21 will offer $83,074 in livestock premiums —$10,365 more than last year and the highest in the history of the 66-year-old exposition.

Ray W. Wilson, manager of the fair's livestock department, said the 1951 premium list has been mailed to 7,500 livestock breeders and exhibitors throughout the nation, and to all county agents and vocational agriculture teachers in Texas.

Topping the list of shows featuring 26 breeds of cattle, swine, horses, sheep and Angora goats will be the Pan-American National Hereford Show, Oct. 6-11. Premiums of $25,000 are offered for this show alone, the highest the fair has ever posted for any one show.

Total beef cattle premiums are $34,650, an increase of $12,300 over last year. Arrayed with the Herefords will be top Aberdeen-Angus, Brahman and Shorthorn cattle. All beef cattle shows run Oct. 6-11.

Dairy cattle premiums total $15,450. Guernsey, Holstein-Friesian, Jersey and Milking Shorthorn cattle will be shown Oct. 12-19.

The Junior Livestock Show Oct. 15-20 will offer premiums totaling $14,945, an increase of $3,695 over 1950 There will be classes for dairy cattle, steers, pigs and sheep.

Premiums for the nine breeds of swine to be shown total $9,152 and prizes for the six breeds of sheep that will be on display come to $2,977. Angora goat premiums amount to $850. Swine, sheep and goats will be shown Oct. 6-14.

Dates and premiums for the horse show will be announced later, Mr. Wilson said.

Ginners OPS Advisory Committee Is Named

W. O. Fortenberry, president of the National Cotton Ginners' Association and the Texas Cotton Ginners' Association, this week announced that a committee of ginners has been named by him—at the request of OPS—to meet with Nelson Eddy, chief of OPS's Fats and Oils Branch, to discuss ceiling prices on ginning.

Mr. Fortenberry requested the state ginners' associations to recommend a member to serve on the committee. The following have been named as committee members: Alabama, M. M. Paschall; California, F. A. Yearout; Georgia, A. G. Swint; Louisiana, George T. Hider; Mississippi, Garner M. Lester; Missouri, Crews Reynolds; Oklahoma, Arch Rollow; North Carolina and South Carolina, J. F. McLaurin; Tennessee, W. B. Shibley; Texas, W. O. Fortenberry, S. N. Reed, and W. D. Watkins.

For "Outstanding Contribution"

USDA Award Goes To John Larrison

■ **Stoneville Laboratory equipment expert wins coveted award for his work in development of USDA's automatic bale sampler.**

John E. Larrison, of the U. S. Cotton Ginning and Fiber Laboratory at Stoneville, Miss., has been awarded USDA's coveted Superior Accomplishment Award for his outstanding contribution in the development of the automatic packaging device used in the automatic bale sampler developed by USDA.

The presentation was made this week in the office of Francis L. Gerdes, who is in charge of the Stoneville Laboratory, Research and Testing Division, Cotton Branch. The presentation was made by William J. Martin, assistant chief of the Research and Testing Division, in the presence of staff members.

The award read as follows: "For meritorious contribution to the development of the automatic cotton sample packager which has greatly improved the marketing system for cotton and for the untiring work and outstanding part played in creating the utility of the equipment and its acceptance by the cotton industry."

John E. Larrison, center, in charge of USDA's Equipment Development Laboratory, receiving Superior Accomplishment Award from William J. Martin, right, assistant chief, Research and Testing Division, Cotton Branch, USDA, in the presence of Francis L. Gerdes, in charge of the Stoneville Cotton Laboratory, in his office at Stoneville, Miss.

Larrison was born at Portland, Ark., Nov. 18, 1918; attended high school at Wilmot, Ark., and graduated from the University of Arkansas in June, 1939 with a degree in mechanical engineering. He is the son of C. E. Larrison, prominent ginner and banker of Wilmot, Ark.

He went to the Stoneville Laboratory in July, 1946 to head up the laboratory equipment work after having had experience during the war years with the

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Satisfactorily tested during the 1950 ginning season and will be installed on all 1951 Statifier outfits.

This new type electric valve automatically drains the wet water solution from the nozzles back into the supply tank when the batt stops coming from the condenser. This prevents the mist nozzles from dripping on the lint slide, and keeps the lines from freezing in cold weather.

THE NEW VALVE CAN BE INSTALLED ON STATIFIER OUTFITS NOW IN USE.

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Mare Island Naval Ship Yards in Vallejo, Calif., where he handled responsible duties in designing piping systems for ships.

Larrison's unit has been responsible for many new technical developments in the field of cotton testing and marketing, and the work of this group on the automatic sampling and packaging unit has attracted industry-wide attention.

The automatic bale sampler collects lint during ginning and packages a cross-section of the bale into a true sample. It diverts small amounts of cotton from the gin lint flue at six periodic intervals during the ginning of a bale. This cross-section sample of the bale contents is pressed to bale density by the sampler press and carries the same identification as the bale from which it was taken. The sample is of uniform size and is large enough to allow it to be divided into duplicate samples. The device is entirely automatic and resets itself to repeat the process for each bale ginned. It is operated by compressed air and controlled by an electrical timing mechanism.

The unit has been thoroughly tested under practical conditions in a gin in New Mexico, and another is scheduled to be subjected to practical use in the Yazoo-Mississippi Delta this fall.

TIMELY TIPS

On Livestock Feeding

• **Does It Pay to Balance Rations With Protein? Here's What the Experts Say**—G. B. Phillips, Alabama Extension hog production specialist, says that when hogs are fed corn alone in the dry lot it takes about 12 bushels of corn to make 100 pounds of pork. *If the ration is balanced* with protein, minerals and green grazing, hogs can produce 100 pounds of pork with six to seven bushels of corn.

M. L. Mosher, University of Illinois farm management specialist, studied 10-year records on 200 swine farms. He found that the feeders who used the most protein had a return of $170 for each $100 spent on feed. Those using the least protein had a return of $134 for each $100 spent on feed.

The Ohio Experiment Station found that when a protein supplement was used with non-legume roughage in feeding cattle, the digestion of the roughage was increased from 13 percent to 46 percent.

The *Breeder-Stockman* magazine says, "Balanced rations pay dividends in disease control and higher market value of livestock."

• **Raising Dairy Calves More Economically**—The New Mexico Experiment Station raised calves successfully in a two-year experiment by weaning at 30 days of age and feeding calves good green leafy legume hay with the following simple, home-mixed calf starter: 300 pounds of ground milo, 200 pounds of cottonseed meal, 100 pounds of wheat bran, six pounds, each, of salt and steamed bone meal.

When vitamin supplements A, D and niacin were added to this mixture, results were no better than without the supplements.

• **Abundant Water Is Extra Important in Summer**—Ray Ewing, noted author of the text, "Poultry Nutrition," says, "The hen, like other animals, needs more water in warm than in cool weather. A shortage of water for a single day results in a marked drop in egg production the next day or two."

F. B. Morrison, well known livestock feeding authority, says in "Feeds and Feeding," "Often the production of cows is lessened because they cannot readily get plenty of water. There is no greater folly in dairying than this, for feed and labor are expensive in comparison with water."

• **Cottonseed Meal Produces More Milk, Heavier Calves**—A four-year test on the New Mexico experimental range showed that beef cows produced more milk and heavier calves when fed cottonseed meal instead of grain as a range supplement. When a so-called complete supplement (containing protein, energy and vitamin A) was fed the vitamin A did not seem to affect the calf crop. Like most other pasture grazing, plenty of vitamin A was present in the forage.

• **Feed Laying Hens Liberally**—It does not pay to be "stingy" with well-balanced rations for hens. Tests at the USDA Southwest Poultry Experiment Station show that hens fed all they would eat required 4.4 pounds of feed for each dozen eggs. When restricted to ¾ of full feed, they required 6.8 pounds of feed to produce a dozen eggs, and profits were reduced from $1.79 per bird to 34 cents per bird.—*Educational Service, National Cottonseed Products Association.*

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Oil Mill Equipment for Sale

FOR SALE — Three-section cage French screw presses with 40 h.p. flange mounted motor and tempering bin. Also No. 1 Anderson expellers, belt driven, attractively priced. Inquire—Box 493, care The Cotton Gin and Oil Mill Press, P. O. Box 444, Dallas 1, Texas.

OIL MILL MACHINERY FOR SALE: Cookers — Pumps — Presses — Cylinders — Heads — Columns — Formers — Accumulators — Hydraulic Pumps — Hot Cake Cutters and Strippers — Cake Bin Feeders — Filter Presses, 32x32 with 49 Plates — Electric Motors, 15 to 150 h.p. with starters — Shaft Coupling and Pulleys — 30" — 36" Chandler Hullers — Post and Pillow Block Ball Bearings — Conveyor Heads and Hangers — Enclosed Right Angle Drives — Elevator Belts, Buckets, Sprockets and Chain — Carver Lint Tailing Beater and Shaker — Brust Grabbot Machines.—Write, wire or phone Sproles & Cook Machinery Co., Inc., 151 Howell Street, Dallas, Texas. Telephone PRospect 5958.

FOR SALE—Complete 3 press hydraulic oil mill and 4 cotton gins all in good condition, write or call.—Geo. T. Jepsen, Prague, Okla.

FOR SALE—72-86" cookers, rolls, formers, cake presses and parts, accumulators-pumps, hull-packers, Bauer No. 153 separating units, bar and disc hullers, beaters-shakers, Carver linters, single box baleing presses, filter presses, expellers, attrition mills, pellet machines, pheumatic seed unloader. If it's used in oil mill, we have it. V. A. Lessor and Co., P. O. Box No. 108, Fort Worth, Texas.

FOR SALE—Oil mill equipment including Anderson expellers and French screw presses.—Pittock and Associates, Glen Riddle, Pa.

FOR SALE — 10 French hydraulic presses — 13 boxes complete with French change valves. Buckeye automatic cooker—5 high—72". French cake former—hydraulic swing head. French cake stripper, hookless cake stripper, 12 ton Buckeye hydraulic accumulator, 15 ton Buckeye hydraulic accumulator, Platt hydraulic pump, Heim hot cake cutter, 2 Bauer hull beaters, 54" horizontal tubular boiler, 125 pounds, 44" horizontal tubular boiler, 125 pounds.—Agricultural Products Co., Box 1984, Phoenix, Ariz.

Gin Equipment for Sale

GOOD USED and reconditioned machinery, plenty of it in Waco stock and at other points. A few of many good items on hand are listed below: Munger, Murray, Lummus and Gullett gins. CONDENSERS: 50" Murray steel. 72" Continental steel. 60" Lummus steel, wood frame. Several good presses, hydraulic rams and casings, hydraulic pumps, a large stock of new and used fans, conveyors, belting and transmission equipment. Tell us what you need. We probably have it, and for less.—R. B. Strickland & Co., 13-A Hackberry St., Tel. 2-8141, Waco, Texas.

THREE MUNGER rebuilt, steel frame, 80 saw, air blast, ball bearing gin stands. One steel Murray tramper. Three Hardwicke-Etter 80 saw, all steel cleaner feeders. Bargain.—V. A. Lessor & Co., P. O. Box 108, Fort Worth, Texas.

FOR SALE—3 rebuilt 80-saw Murray gins, never been used. In factory crates. A bargain if you need three gins same as new.—Farmers Cotton Oil Company, Wilson, N. C.

FOR SALE—Continental cotton gin complete consisting of: Four ball bearing Munger gins with Mitchell feeder extractors, hydraulic press packer, condenser, seed elevator, fans, line shaft, pulleys, belts etc. Powered with 80 h.p. model 32 cold start Fairbanks-Morse upright full Diesel. This gin must be seen to appreciate and priced to sell.—Write or call, Curtis C. Wright, 328 No. 15th St., Phone 5369, Fort Smith, Ark

FOR SALE—Four Continental 80 saw gin stands complete with lint flue system and transmission. Immediate possession, new saws and brushes put in 1950.—Farmers Cotton and Grain Company, East Prairie, Missouri.

FOR SALE—5-80 Gullett Brush gins, with lint flue complete. Good condition. Replacing with 90-saw Gullett gins.—Lawson Gin, Hamilton, Texas.

FOR SALE—10' Wichita Hughes all steel bur machine, v-belt and flat belt drive, practically new. One 20' rotary lift. One Hardwicke-Etter ram and casing, new by-pass type.—H. C. Ritchey, Frisco, Texas, phone 6.

EXCELLENT BUY—Three 80-saw all-steel Cen-Tennial gins with huller breasts. All-steel 1-story up-packing Cen-Tennial press with tramper and ram. All-steel double drum Cen-Tennial down-discharge condenser. Will sell any part.—Contact J. C. Whitaker & Son, Coldwater, Tenn.

CLEANING EQUIPMENT—We offer several batteries of Continental, Mitchell, Lummus, Gullett, and Murray Bilewitt Extracting Feeders. Also, two or three good wood and steel overhead bur machines. Can still furnish a few new "Government Type" tower driers, cross blow boxes, burners and other equipment for complete drying systems. Get our prices before buying.—R. B. Strickland & Co., 13-A Hackberry St., Tel. 2-8141, Waco, Texas.

ALL STEEL GIN BUILDINGS, any size. For immediate delivery in Texas.—Marvin R. Mitchell Construction Co., 1220 Rock Island, Dallas, Texas, Phone RAndolph 5615.

FOR SALE—Two special bargains in Rio Grande Valley, if bought this month.—M. M. Phillips, P. O. Box No. 1288, Phones 3-1171 or 3-3914, Corpus Christi, Texas.

FOR SALE—Four new 60" Mitchell super units and Mitchell conveyor distributor, never been used $6000.00 f.o.b. Durant, Oklahoma. One all steel 14' bur machine. One 5-cylinder all steel Hardwicke-Etter cleaner. One 5-cylinder wood Hardwicke-Etter cleaner. One all steel Harwicke-Etter dropper. 14' bur machine, 2 cleaners and dropper priced at $4500.00. Bur machine, one steel cleaner and dropper used very little. One 6-cylinder Leroy gas engine 135 h.p. equipped with v-belt drive, priced at $2000.00 f.o.b. Durant, Okla. This engine has been used very little.—Call, wire or write, Jimmy Hall, Manager, Cotton & Gin Department, Muskogee Cotton Oil Mill, Telephones 8118 and 8314, Muskogee, Okla.

FOR SALE—Three standard double X 80 saw Continental huller—cleaner, feeders in good condition, complete with supports and cotton slides. Also, three 80 saw Continental stands with model 30 fronts, 1S & B drive in good condition.—New Delta Gin Co., Inc., Clarksdale, Miss.

FOR SALE—Modern 4-80 Continental gin plant, in excellent, large territory on South Plains of Texas, 6-cylinder M-M engine, new special super Mitchells, modern managers home, growing territory, some irrigation, will gin capacity this year. Priced to sell at $42,000.—Write Box "ABC" e/o The Cotton Gin and Oil Mill Press, P. O. Box 444, Dallas 1, Texas.

FOR SALE—Four 70 Muray steel gin stands. Six 70 Murray lint flue, 50 inch ball bearing, good suction fan, 8-3/8 Cen-Tennial steel ram head and casing complete shafting, ball and roller bearings, other items.—McWilliams Gin, Gainesville, Texas.

FOR SALE—One Murray all-steel 5-cylinder 52" incline cleaner. Good condition. One Hancock 72" all-steel bur extractor.—Fulton Gin, Rt., 8, Waco, Texas.

FOR SALE—One Mitchell 6-cylinder Jembo, combination extractor, drier, and cleaner. 4-80 Continental model "C" A.B., D.C., air blast gin with model "30" fronts, lint flue. One 4-cylinder 52" steel Stacy cleaner. Five 66", 1939 model flat belt convertible Mitchells. Four 66" cast-iron head standard Mitchells in good condition. One 10' 6-cylinder Continental, all steel after cleaner. Three 14' Hardwicke-Etter wood bur machines with by-pass conveyors. One 25" Boardman bur fan. One American steam hydraulic pump. 5-80 Continental I.S. and A.B. model "F-3" gins with roll indicators, factory rebuilt and painted at the Continental Gin Co., Dallas, with lint flue. Two 45" Continental cast-iron fans, reworked and repainted. One standard Mitchell 1933 model 60" with type "F" after cleaner. Two steel bound Continental Paragon presses with channel iron side supports, square center column, center crank door opener, and counter-balanced doors. One Murray tramper. Five 60" Hardwicke-Etter huller feeders. Two 10' Hardwicke-Etter wood bur machines. Two Continental vacuum boxes. One 4-70 Continental oval steel side-discharge condenser. Six 80-saw A.B., D.C., all steel Cen-Tennial commandor gins with lint flue. Four 80 D.C. model "C" Continental brush gins. One 80-saw Murray gin with glass fronts and 6" mote conveyor, lint flue. One 72" Continental impact cleaner with steel supports. One Continental triplex automatic oiling pump. One 16-unit Lummus thermo cleaner. One 10-unit Lummus thermo cleaner. 5-80 D.C., Lummus steel gins in good condition with lint flue, conveyors,etc. 5-80 Lummus L.E.F. feeders. 4-80 Murray gins with 6" mote conveyors, lint flue and up-discharge steel condenser, steel bound press, etc. 8-cylinder steel inclined Wichita cleaner. One 72" Hardwicke-Etter up-discharge steel condenser. One 50" Lummus multi-blade fan. One five row Mitchell steam radiator and one 15 row steam radiator. Both in good condition. Have several late model gins to be moved that are worth the money.—Bill Smith, Abilene, Texas, Box 694. Phones 4-9626 and 4-7847.

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4—200 hp. 3/60/2200/900 rpm, slip ring	1—100 hp. 3/60/2200/900 rpm, squirrel cage
6—200 hp. 3/60/440/900 rpm, slip ring	2—100 hp. 3/60/220/900 rpm, squirrel cage
4—150 hp. 3/60/2300/900 rpm, slip ring	4—100 hp. 3/60/2200/900 rpm, slip ring
2—150 hp. 3/60/440/900 rpm, slip ring	2— 75 hp. 3/60/440/900 rpm, slip ring
3—125 hp. 3/60/440/900 rpm, slip ring	2— 75 hp. 3/60/220/1200 rpm, squirrel cage

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FOR SALE—Complete gin outfit—right price: 3-80 saw Continental all steel gins, with Master XX cleaner, huller, extractors. Lummus tower dryer. Dixie automatic tramper with steel bound wood press. One pair 10 ton Howe truck scales. One 120 h.p. Fairbanks-Morse diesel engine. The outfit has only ginned a limited amount of cotton and is in good condition.—The Southern Cotton Oil Company, R. E. Binion, Manager, Box 2351, Telephone 9-2105, Birmingham, Ala.

STEEL CLEANERS and other good items now on hand. One 5-cylinder 50" Hardwicke-Etter steel incline cleaner, two years old, practically new condition. One 52" Murray 6-cylinder steel straight line gravity cleaner with fan type cylinders and screw type dirt pan. Four 66" Continental double X model "D" extracting feeders. Four 80-saw 6" mote conveyor Murray steel gins. One Lummus steel bound "down packing" swing door press. One Murray model "PH" steel bound up-packing press. Tell us your needs, we may have just what you want.—R. B. Strickland & Co., 13-A Hackberry St., Tel. 2-8141, Waco, Texas.

FOR SALE—3-80 Murray 1948 model gins; 3-60" 1948 model super Mitchell feeders. Replacing with Murray 90-saw gins. Equipment in perfect condition.—Drummond Gin Co., Drummond, Tenn.

FOR SALE—One all-steel Bucket elevator, 20' legs, cast iron boot. Five Gullett huller cleaner feeders. One Frick Read electric steam generator. One 32 x 14" cast-iron split pulley.—Box 921, Desdemona, Texas.

COTTON GIN FOR SALE—The S. R. Toman Gin Co., Ltd., will be offered for sale at public auction on Saturday, June 9, 1951, at 10:00 a.m. at the gin location in Robstown, Texas, by Robert Fagan, receiver. Terms of sale are cash with right in receiver to accept or reject any and all bids. Sale subject to confirmation of court.

FOR SALE—One 10' Continental all-steel burr machine, hopper feed type. In good running condition. 5-70 saw Pratt gin stands in good shape with lint flue. 5-80 plain bearing Mitchell feeders. One 4-drum Continental cleaner. All above equipment is in good condition and can be bought cheap.—Robt. G. Davis, P. O. Box 683, Altus, Okla. Phone 1240.

FOR SALE—Three Continental double x huller-cleaner-feeder extractors with after cleaners, size 70, model "C".—J. E. Little Estate, Conway, Ark.

FOR SALE—4-80 Cen-Tennial air blast gin stands —new saws last year. Gins are in A-1 condition. They are all-steel loose roll gins. Must be seen to be appreciated. Also pulleys and belts.—Boedeker Gin, Taylor, Texas.

FOR SALE—Approximately 3,000 new 10" gin saws 2-3/16" bore.—Peerless Manufacturing Company, Fort Valley, Ga.

Equipment Wanted

WANTED TO BUY—Good used gin machinery of any kind.—Bill Smith, Abilene, Texas.

WANT TO BUY—Used tower drier and burner, oil or butane.—Farmers Warehouse and Seed Company, Locust Grove, Ga.

WANTED—12' 2-15/16" shafting, one 2-15/16" floor stand or 2-15/16" pillow block ball bearing. —Box 921, Desdemona, Texas.

WANTED—Seed scales for gin. Must be in good condition and reasonably priced.—W. B. Swain, Leland, Miss.

WANTED—Saws to file at your plant. Years experience on any model gin. Twenty four hour service, anywhere, at any time. — Ford Hoke, Shiro, Texas.

WANTED—A good air-line cleaner at a bargain. Write description and price.—J. B. McClung, Winona, Texas.

Personnel Ads

HELP WANTED—Ginner for new Murray-Mitchell Supers and Super gems who can assume responsibility for operation and help. Four room modern house furnished. Year-around job. Good schools. Also four ginners for night jobs, starting September 1st. Give references.—Box 548, Artesia, New Mexico.

WANTED—Bookkeeper experienced in oil mill records and accounts for work in Louisiana.—Write Box "JCD" c/o Cotton Gin and Oil Mill Press, P. O. Box 444, Dallas, Texas.

WANTED—Chemist to set up and operate small private laboratory, to do analytical work for solvent soybean oil mill, expeller cottonseed oil mill and for fertilizer and insecticide blending plants. Give experience, references and salary expected. Confidential.—Riverside Oil Mill, Marks, Miss.

HELP WANTED—Capable ginner, preferably single, for plantation gin, who can assume responsibility for complete operation. Give references.—Proctor Gin Company, Proctor, Ark.

WANTED—Ginner capable of repairing and handling Murray air blast gins, etc. Diesel engine. Immediate work.—H. W. Hillman, 213 S. Menefee, Edna, Texas.

HELP WANTED — Male — a first class ginner to operate modern Murray gin in Arkansas. Good working conditions. Details on request.—Write Box "BU" c/o The Cotton Gin and Oil Mill Press, Box 444, Dallas, Texas, giving full details as to experience.

EXPERIENCED oil mill superintendent available. Many years in the trade—will furnish complete references and qualifications upon request.—Address Box "TM," c/o The Cotton Gin and Oil Mill Press, P. O. Box 444, Dallas 1, Texas.

Power Units and Miscellaneous

FOR SALE—Two 50,000 gallon and one 20,000 gallon riveted steel 3/16 inch sides, ¼ inch bottom, and 1/8 inch conical top tanks in good condition.—Call or write Owen Killingsworth, Athens, Texas. Phone 2220.

FOR SALE—Climax gas engines. Murphy diesel engines (dual fuel). 1-8 cylinder RXVI LeRoi Mill type, with starting engine. 1-8 cylinder D1700 Caterpillar Mill type with starting engine. Electric generator sets, all sizes. Electric motors, all sizes with starters—partial list—150 h.p., 200 h.p., 250 h.p., 300 h.p., 350 h.p., 400 h.p. V-Drives. Complete repair shop for engine rebuilding and motor rewinding.—H & H Equipment Company, Inc., 337 South Industrial Blvd., Dallas, Texas. RIverside-3501; WOodlawn-7839.

ALL STEEL BUILDINGS for cotton industry—warehouses, cottonseed houses and gin buildings. —Marvin R. Mitchell Construction Co., 1220 Rock Island, Dallas, Texas. Phone RA-5615.

POWER—One model RX1, 100 h.p. LeRoi power unit, gasoline engine starter, fully equipped. One 80 h.p. Fairbanks-Morse model 32 diesel engine. One 35 h.p. Minneapolis-Moline 4-cylinder power unit, steel housing, electric starting system, etc. One 60 h.p., 2200 volt, 865 r.p.m. slip-ring motor with starting equipment. One 50 h.p. G.E., 220 volt, 1200 r.p.m. squirrel cage motor. One 25 h.p. G.E., 220 volt, 900 r.p.m. Fairbanks-Morse ball bearing motor with starter. New Buda engines available.—R. B. Strickland & Co., 13-A Hackberry St., Tel. 2-8141, Waco, Texas.

FOR SALE—One Bruce-McBeth gas engine, 215 bhp direct connected to a 125 kw, 2300 volt G.E. generator with v-belt exciter. 1—Bruce-McBeth gas engine, 165 bhp direct connected to a 125 kw, 2300 volt G.E. generator with v-belt exciter. 1—Fairbanks-Morse fuel oil engine, 240 bhp direct connected to a Fairbanks-Morse 200 kva 40 degree 2400 volt generator with belted exciter. These generating units are in good operating condition and can be seen in operation at the Municipal Electric Light Plant at Brownfield, Texas.—Nordberg Mfg. Co., 419 Cotton Exchange Bldg., Phone Sterling 3261, Dallas 1, Texas.

FOR SALE—New and rebuilt Minneapolis-Moline power units in stock, all sizes. Sales, parts and service, day or night.—Ft. Worth Machinery Co., 1123 East Berry, Ft. Worth, Texas.

FOR SALE—Fully automatic 60 h.p. Erie City economic boiler complete with Iron Fireman Kisco return system, low water cutoff, etc., good condition.—Riverside Oil Mill, Marks, Miss.

FOR THE LARGEST STOCK of good, clean used gas or diesel engines in Texas, always see Stewart & Stevenson Services FIRST. Contact your nearest branch.

FOR SALE—One 40 h.p., 220 volt, 900 r.p.m., three-phase electric motor with starter switch. One 60 h.p., 220 volt, 1800 r.p.m., three-phase electric motor with starter switch. One 125 h.p., 2300 volt, 900 rp.m., rebuilt slip ring electric motor with sliding base and starter equipment. One 30 h.p., 2300 volt, 1800 r.p.m., sliding base and starting equipment.—Bill Smith, Abilene, Texas, Box 694. Phones 4-9626 and 4-7847.

$30,000,000 Laboratories Dedicated by Du Pont

Top university and industrial scientists from almost every section of the country met at Wilmington, Del., May 10 to dedicate the $30,000,000 addition to the Du Pont Company's new Experimental Station laboratories.

The gathering heard two addresses, one from Dr. James B. Conant, president of Harvard University, the other from the Du Pont Company president, Crawford H. Greenwalt. The visitors spent the afternoon at the station with members of the company's board of directors, departmental officials and research staff heads, visiting typical laboratories and inspecting exhibits illustrative of the kind of research conducted there.

Syria Increases Cotton Production Rapidly

Recent estimates have placed the 1950-51 production of cotton in Syria at about 140,000 bales (500 pounds gross weight), slightly less than double the 1949-50 crop of 80,000 bales.

Around 95 percent of the current production consists of American Upland type cotton of the Lone Star and Lockett varieties, averaging 1⅛ inches in staple length, which is used in the local mills and exported. The remaining five percent of the crop consists of short staple native or "beladi" cotton of the type that has been grown in the country for many years, used largely within the country for mattress-making and furniture upholstering. Cotton growers report that around 30 percent of the crop is not irrigated, mostly in the Aleppo and Latakia areas.

Preliminary forecasts indicate that production in 1951-52 is expected to exceed 300,000 bales, with some estimates exceeding 350,000 bales. In any event, production is expected to be more than double the 1950-51 crop. Syrian farmers have shown great interest in cotton during the current sowing season, perhaps due to the large profits reported to have been made by cotton growers with the crop just harvested. The demand for imported cottonseed, which far exceeds the supply, may force some growers to use their own seed from the preceding crop. A large number of water pumps have been installed along the rivers to irrigate new cotton land. For the first time cotton planting machinery has been imported. While some new land is being planted to cotton, in other areas cotton cultivation is being increased at the expense of other crops. A portion of the area being planted to cotton is usually planted to food crops which are vitally needed on the domestic market.

There are several factors that may limit the production of cotton in 1951-52. Lack of sufficient snow during the past winter may reduce the available supply of water for irrigation. Rainfall, which has been below normal thus far, must increase in the late spring in order to insure favorable yields. It is also possible that shortages of labor and animals for plowing may limit the acreage actually planted to cotton this season to a smaller area than originally planned. In addition, the strong demand for labor and machinery has caused the cost of these items to increase, which in turn will result in a higher total cost of production over the preceding crop. Continued high prices for raw cotton will be necessary throughout the coming season in order to make cotton profitable to the farmer.

With the increase in importance of cotton to the economy of the country, the Syrian government has shown more interest in developing cotton production than ever before. Three cotton experts from the Egyption Ministry of Agriculture have been brought to Syria for a year to help the government organize a cotton department in the Ministry of Agriculture, to develop and supervise cotton experiment stations throughout the country and to develop controls over the Syrian ginning industry and cotton export trade.

• Cattle on U.S. farms Jan. 1 numbered 84,200,000 head, compared with 80,000,000 a year earlier and 78.8 million head for the 1940-49 average.

New Association Secretary-Treasurer

Oklahoma Ginners, Crushers Appoint J. D. Fleming

■ Former cotton specialist of Oklahoma Extension Service took office with the two associations on May 15. Knows cotton from planting to harvesting and is firm believer in mechanized production.

THE OKLAHOMA Cotton Ginners' Association and the Oklahoma Cottonseed Crushers' Association last week announced the appointment of J. D. Fleming to fill the office of secretary-treasurer of the two associations, made vacant with the death of Horace Hayden on March 23. Mr. Fleming's appointment became effective May 15.

He goes to the ginners' and crushers' associations from the Oklahoma Agricultural Extension Service at Stillwater, where he had been cotton specialist since 1949. Mr. Fleming is a native of Oklahoma and graduated from the A. & M. College in 1937 with majors in soils and agronomy. He joined the Extension Service the year he finished college and was placed in charge of the Tulsa AAA office. He was transferred to the Muskogee AAA office in 1938 and in 1940 was named assistant county agent of Muskogee County, where he was in charge of the 4-H Club program until 1942.

Mr. Fleming spent almost six years in Alaska, first with the Army, then as a private citizen with the War Department in post-war construction work. He returned to the Extension Service in Oklahoma in 1949 as cotton specialist. He handled the Extension cotton program and took an active part in stressing the value of planting certified seed of adapted varieties. He has long been interested in improved cotton production methods and was in charge of a number of field days held throughout the cotton producing areas of the state, with special emphasis on the mechanization of the crop. Mr. Fleming is a firm believer in the use of the rotary hoe as an economical cultural practice in cotton production, and has worked closely with farm machinery manufacturers in demonstrating the use of modern production and harvesting equipment.

He worked up the 4-H Cotton Improvement program for the Extension Service in cooperation with all branches of the cotton industry in the state. Last year 5,700 Club members participated in the program with approximately $5,000 in prizes awarded. The ginners and crushers of the state have actively participated in this program.

J. D. FLEMING

The new ginners' and crushers' secretary-treasurer is now on the job in Oklahoma City and is anxious for members of the two industries to call on him when they are in the city. Mr. Fleming will, of course, be present at the annual convention of the crushers' association, to be held June 4-5 at Lake Murray Lodge, near Ardmore.

Know Your Staple!

Identifying Cotton Pays in Georgia

A demonstration in identifying and marketing cotton according to variety and area of growth is under way in Georgia for the fourth year, and C. J. Bryant, Extension Service marketing specialist who is conducting the project, believes one result will be an even further reduction in the number of varieties grown in the state. Mr. Bryant explained that approximately 90 percent of the cotton in Georgia last year was of only six varieties as compared with over 300 20 years ago.

The marketing specialist pointed out that Georgia's one-variety cotton community movement got underway around 1930. He continued that identification and study of spinning data of cotton produced in one-variety communities indicate that efforts to establish such communities are paying off.

In 1949, 13,000 bales of cotton were tagged. Of these, approximately 800 bales were Empire variety ginned in a Haralson County one-variety community. One hundred and fifty bales were followed by Mr. Bryant through market channels to a mill in South Carolina, where the cotton fiber was studied in the mill's laboratories. The mill operated for one week, using only cotton from this community. Data was gathered at frequent intervals during the spinning tests. When all data had been compiled, the manager of the mill said: "Where can we get more of this Empire cotton? We could use it in large quantities."

"For a long time," Mr. Bryant said, "buyers have been able to pull staple and determine its length. By examination, they could determine grade. But they haven't been able to determine fiber characteristics. This can be done only in the laboratory or in the manufacturing process."

The identification program, he pointed out, identifies lint of known quality characteristics. "It thus enables the buyer and spinner to know 'what's inside the package.'"

The Georgia Extension Service hopes that data gathered through this project will result in more one-variety communities and counties in the state. Mr. Bryant feels that this is necessary if Georgia is to compete with western states in cotton production.

He continued that the checking program will eventually help buyers to know that certain sections grow cotton of known characteristics. It was pointed out that one Georgia mill bought 1,500 bales from one gin in a one-variety community. This was three-fourths of the total output of that gin in 1950. The cotton had been tagged, and the buyer knew its quality characteristics.

"Breeders have put into cotton the quality characteristics demanded by spinners," Mr. Bryant said. "This quality should be maintained, and tags should be put on the cotton so buyers and spinners will know what it is."

This work is carried on through local gins in one-variety communities. Only six gins took part when the program began in 1948. Around 35 gins in 23 counties will participate this year, and Mr. Bryant expects last year's 25,000 bales tagged to be doubled this year.

Farm Movie to Have Its Premiere in Georgia

Several hundred agricultural leaders from eight southeastern states and home demonstration club members from practically every county in Georgia are expected to attend the world premiere of a new educational motion picture, titled "Land and Life," on the University of Georgia campus June 13.

Much of the new picture, which is sponsored by Agricultural Extension Services in the eight states and the Tennessee Valley Authority, was filmed on the farm of Emmett Cabiness, Oglethorpe County (Ga.) master farmer.

S. G. Chandler, Extension Service district agent and a member of the executive committee charged with planning the picture and supervising its production, points out that "Land and Life" portrays the relationship of land and people and "shows all of us our place in partnership with the soil, from whence comes our very life."

Vegetable Oil Crops

(Continued from Page 21)

in such industrial products as wallpaper adhesives, water-thinned paints, plywood glues, paper and textile sizes, plastics, fire foam stabilizers, printing inks, and textile fibers.

The Principal Oil Crops

Let us look at nine of the principal oil crops and two others (corn and castor), which are not included with the 13 primary oil crops of the world.

• **Soybeans** — Soybeans (*Glycine max* (L) Merrill) have been one of the most important food crops in the Far East for a long time. Lately they have become an important source of food, feed, and industrial raw material in the West, especially in the United States. Before 1940, production was centered in China, Manchuria, and Korea. During the 1930's, the cultivation of soybeans increased greatly in the Corn Belt and spread to southeastern Europe, the Soviet Union, and the Netherlands East Indies. During the war, production of soybeans in our Midwest expanded enormously, spreading beyond the Corn Belt as far south as Louisiana and east to New York.

The United States, in competition with Asia, became a net exporter of soybeans in 1937, when slightly more than 38,000 short tons were shipped to Europe. Exports of soybeans from the United States in 1937-1941 averaged more than 100,000 tons annually. In 1948 the United States became the foremost soybean-producing country. Domestic soybean oil in 1944 displaced cottonseed oil from the dominant position it had long held. By 1948, soybeans accounted for one-half of the vegetable oil and 60 percent of the vegetable-protein meal produced in the United States.

Soybean meal is used as feed for all types of farm animals, in the manufacture of industrial products, and in many food products. The oil is the principal source of inexpensive vegetable lecithin, which has replaced egg lecithin for many uses. The production of soybean lecithin has passed 8 million pounds and is still expanding. That byproduct of the soybean-oil industry, together with a small amount of lecithin obtained from corn oil, has many uses as a modifier of interfacial tension, the force that prevents the mixing of oil and water. It is added to margarine, to reduce spattering in frying; to chocolate, to reduce "bloom," or separation of fat, in confectioner's coatings; to many fat-food products as an antioxidant; and to various textile processing and finishing baths as a wetting agent—to mention only a few of its uses.

• **Cotton**—The decline in the production of cotton (*Gossypium* sp.) and the expansion in the production of soybeans in the United States have probably shifted cottonseed from third to fourth place as a world source of vegetable oils. Cottonseed still contributes about 2 million tons of oil, however, and will probably continue to do so for many years.

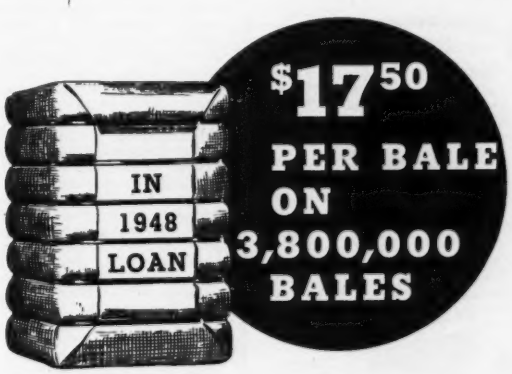
The major cotton areas outside the United States are Brazil, Egypt, the Soviet Union, India, and China. Cotton also is grown in many tropical and subtropical countries. The seed, because of its bulk and poor storage quality, generally is not a large item of world trade; only 10 percent or less of the total cottonseed oil enters world trade channels.

The area planted to cotton in the United States declined rather steadily from more than 43 million acres in 1930 to about 17 million acres in 1945. In the same period the production of cottonseed declined from 6.0 million tons to 3.6 million tons. Crude oil dropped from 721,000 tons to 509,000 tons in the same period. The number of active cottonseed-oil mills declined from 530 to 360; however, that reduction began shortly after 1914 when 882 mills were operating, and resulted originally from over-expansion and subsequently from increased efficiency of equipment and methods of processing. After 1945, the domestic production of cottonseed and oil increased again to a peak in 1949, when acreage restrictions were once more imposed because of excess supplies of lint. These controls have been removed for the present but may be applied again if a surplus of lint cotton becomes a reality.

• **Peanut** — The peanut (*Arachis hypogaea*) ranks second, and in some years first, as a source of the world's supply of vegetable oils. Unlike most of the leading peanut-producing countries, however, the United States grows this legume primarily for consumption in the form of peanut butter, salted and roasted nuts, and confections.

For many years Asia has been the principal producer of peanuts, followed by Africa and North America. The average annual production before the war was: Asia, 7 million tons; Africa, 1.7 million; North America, 0.6 million; India, 3.2 million; China, 2.9 million; French Equatorial Africa, Nigeria, and Cameroons, 1.2 million; the United States, 0.6 million tons.

Since 1940, the acreage in peanuts has expanded in most countries, including



Through the Commodity Credit Corporation thousands of Cotton farmers, who placed 3,800,000 bales of the 1948 crop in government loans, are now receiving a profit averaging $17.50 per bale. This is over and above the amount they received from the loan.

Your Cotton Warehouse provides the service necessary in obtaining government loans — furnishes correct weights, pulls samples for classing, certifies loan papers requested by the government.

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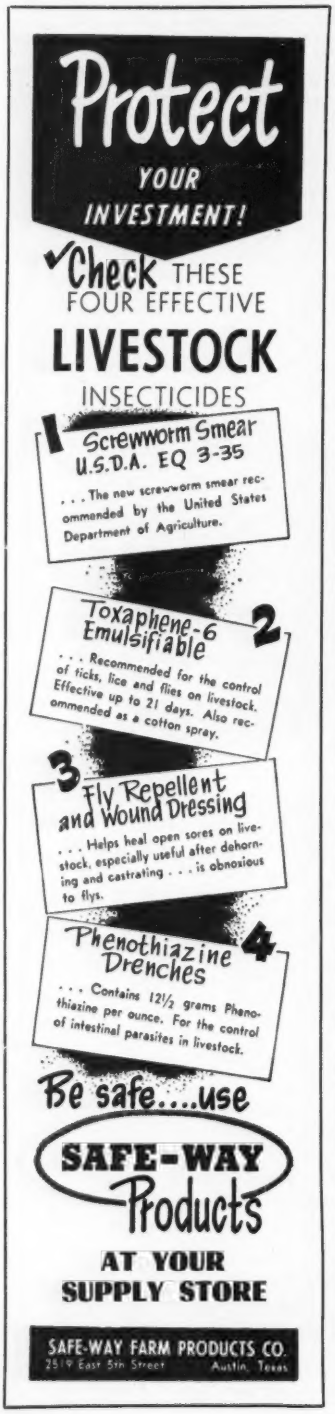
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the United States, although it has gone down somewhat in others. Production in the United States nearly doubled during the decade 1939 to 1948—from 606,500 tons to 1,134,000 tons, but it declined thereafter because of restrictions on planting. The production of peanut oil fluctuated markedly during this period, but the average over a period of years showed an upward trend. Prewar production (1937-1941) was about 43,500 tons annually; during 1942 to 1946 production increased to 64,000 tons, and in 1949 reached 91,000 tons.

Production of peanuts in the United States from 1942 to 1950 averaged more than a million tons annually, but only 5 to 20 percent of the total was crushed for oil. By contrast, approximately one-third of the world's peanuts normally enter world commerce for conversion into oil and meal, besides those retained at home, where they are also largely crushed for oil.

• **Corn**—Oil is recovered from corn *(Zea mays)* by pressing or extracting with solvents the germs, which are obtained as a byproduct in processing corn for starch, hominy, and other products. The germ contains about 50 percent oil, but on the basis of the whole grain the oil content is only 3 to 6 percent. Since 1940, the annual production of crude corn oil in the United States has averaged about 110,000 tons. Some corn oil is produced in South Africa, Argentina, and Canada. During the war, small amounts were produced in Germany. Imports between 1937 and 1941 averaged about 7,000 tons annually, but in recent years they have been negligible. Some oil is recovered from wheat germ, rye germ, and rice bran in the United States and other countries.

The principal use of corn oil is in making salad dressings and mayonnaise, for which it is considered well suited because it is a natural "winter" oil—that is, it does not solidify at refrigerator temperatures and destroy the emulsion. About three-fourths of the corn oil is used for this purpose. Most of the remainder is used as a cooking oil or in the manufacture of shortening and oleomargarine.

• **Olives**—Olive *(Olea europaea)* oil has been used by people in southern Europe and the Near East since the dawn of history. Originally, olive oil was produced only in the Mediterranean countries, from which the culture of the olive and recovery of oil spread to California, Mexico, Argentina, and Australia.

The yield of olive oil fluctuates with the variety of the tree, the soil, and the climate. Before 1940, about 850,000 tons of olive oil was produced yearly in the Mediterranean area. In 1947-1948, production exceeded 1.25 million tons, nearly half of which originated in Spain. Normally, the next largest producers are Italy, southern France, Portugal, and Turkey.

The olive was introduced into California from Mexico by Jesuit missionaries about the middle of the eighteenth century. It was originally grown for edible purposes and only inferior or surplus fruit was crushed for oil. In recent years, nearly half of the crop has been crushed for oil. Between 1929 and 1950, the production of olives in the United States ranged from 14,000 tons to 69,000 tons, of which 4,200 tons and 39,000 tons, respectively, were crushed for oil. During the past decade the domestic production of edible oil has decreased somewhat from the 1937-1941 average of 3,000 tons.

Most of the olive oil is consumed in the countries of production. Ordinarily less than one-fourth of the total enters international trade. In past years, the United States has been the largest importer and Spain the largest exporter, but in recent years, Italy has been the largest supplier of edible olive oil to this country. A considerable proportion of the exported oil has consisted of low-grade, or inedible, oil (denatured, sulfured, and foots) which was used in various industrial applications. For the past few years this type of olive oil has come principally from French Morocco, Lebanon, Greece, and Spain.

The use of both edible and inedible olive oil in the United States has been decreasing. Imports of edible oil, which were about 50,000 tons in 1929, had dropped more or less steadily to 480 tons by 1943. Imports of edible olive oil increased again from this low figure to about 10,000 tons in 1949. The decline has resulted partly from availability of domestic olive oil and partly from the change in consumer habits. Olive oil is used in the crude or semirefined state and is traditionally prized for its flavor and color, which would normally be removed by refining. The housewife's preference for bland and relatively colorless fats and oils has been responsible for the declining use of edible grade olive oil.

Imports of inedible olive oil have followed much the same pattern. In 1929, imports amounted to 30,000 tons which decreased to 7,000 tons by 1940 and during the war they ceased almost entirely (41 tons in 1945). Since then they have increased again to somewhat less than 5,000 tons in 1948. The decline in the use of inedible olive oil has coincided with the development of acceptable and cheaper industrial products from domestic fats and oils.

• **Coconut** — Coconut *(Cocus nucifera)* oil, like other palm oils, is produced in the United States entirely from imported materials, in this case copra, the dried meat of the fruit of the coconut palm. This palm ranks first among the world's sources of vegetable oil. It also supplies food and beverage, textile fiber and cordage, fuel, timber, and building materials for much of the population of the tropical lowlands throughout the world. The exact number of trees is unknown, but no doubt exceeds a half billion. Only a part of the total production of coconuts enters international trade in the form of nuts, copra, or oil; the rest is used locally.

Coconut oil is produced by extracting the dried inner kernel or meat of the coconut fruit. Ripe coconuts are cut from the palm by natives skilled in climbing the tall trees. The fruit is husked, and the hard shell of the nut cracked by hand. After draining the coconut water, or milk, the meat is cut into strips and removed from the shell. The strips are dried in the sun or artificially to form the copra of commerce. Copra may be pressed in local mills or shipped halfway around the world before being extracted.

The coconut is adapted to large areas of the Tropics, but it is grown in greatest numbers in the Orient and the South Pacific. The Netherland East Indies is the largest producer of coconuts. The largest exporter of copra and oil is the Philippines. Other important export areas are British Malaya, Ceylon, New Guinea, Mozambique, Fiji, the Solomons, and other South Pacific islands. Large num-

bers of coconut palms grow in South America, Central America, and the West Indies, but the production of copra provides only a small percentage of the edible oil requirements in those areas. Brazil probably has the largest number of coconut palms in the Western Hemisphere, but Mexico, the largest producer of copra, accounts for about half of the total production in this hemisphere.

Coconut oil contains lauric acid and other short-chain fatty acids and is ideal for certain industrial and food uses. Soaps made with coconut oil lather quickly. The oil has a high melting point, a property that gives it extensive use in confectionery, margarine, and some bakery products. It was once used extensively in the United States (and still is in many countries) as a primary ingredient of oleomargarine. It has been replaced almost entirely by such hydrogenated liquid oils as cottonseed, soybean, and peanut oils in margarine in the United States. Generally, only small quantities of coconut oil are used in domestic shortening, but in 1947 more than 47,000 tons was used for this purpose.

Coconut oil is imported in the form of crude oil and copra. Our imports of copra between 1929 and 1941 ranged from about 164,000 tons (1934) to 326,000 tons (1933); later they declined to about 90,000 tons during the war in the Pacific. In 1947, we imported more than 675,000 tons, the accumulated stocks in the Philippines and elsewhere in the Pacific, but thereafter our imports declined again to about 60 percent of the peak volume.

Imports of coconut oil between 1929 and 1941 ranged from 130,000 to more than 200,000 tons. During and immediately following the war, they varied between 1,200 and 25,000 tons but have increased again to about 55,000 tons. By 1949, the combined imports (327,000 tons) of coconut oil and oil equivalent copra had declined to an amount approximating that (320,000 tons) of 1935, and probably reflect the extent to which synthetic detergents have invaded the soap field.

• **Oil Palm** — The African oil palm *(Elaeis guineensis)* ranks with the olive tree in the volume of vegetable oil it yields. The palm has a fruit that gives two types of oil, palm oil and palm-kernel oil. Palm oil is obtained from the fleshy or pulpy part of the fruit, which is analogous to the oily flesh of the avocado, or alligator pear. Palm-kernel oil comes from the kernel of the inner nut. The pulp oil is a highly colored semisolid. The kernel oil is white to light brown and resembles coconut oil in appearance, composition, and use. Palm oil owes its reddish-orange color to the presence of large amounts of carotene.

The oil palm is a native of West Africa, in whose coastal areas grow millions of the wild trees. The natives gather the fruit for making oil. The African oil palm was placed in plantation cultivation about 1910 in the Netherland Indies. By 1940, approximately 250,000 acres were devoted to its cultivation. The trees on 183,100 acres were of bearing age, with an estimated production of 263,500 short tons of palm oil. It was placed in plantation cultivation in British Malaya about the time of the First World War, and by 1940 the acreage devoted to its culture was 78,256 with the trees on about 65,000 acres of bearing age. Palm-oil production amounted to 64,800 short tons, or approximately a ton an acre, in addition to 10,800 tons of palm kernels. During the Japanese occupation the plantations and processing plants suffered from neglect or damage, but they are now producing at nearly prewar levels.

The African oil palm has been grown in the Western Hemisphere from Colonial times, but only recently has it been cultivated on a large scale. Probably it was introduced into Jamaica from Africa as early as 1688. It was known in Martinique in 1763. In Haiti it forms an important subsistence crop. In Brazil, where it was introduced several centuries ago, it is known as the *dende* palm. The state of Bahia is believed to have about 1.5 million trees, of which 300,000 are on Itaparico Island.

Following the successful development of the plantation system of growing the oil palm in Sumatra and Malaya, several companies began experiments in Central America and the northern countries of South America. One American firm now has plantings totaling 18,000 acres and more than 500,000 trees in Costa Rica, Honduras, Nicaragua, Panama, Guatemala, and Colombia.

A Venezuelan firm has 125,000 trees in one 3,000-acre plantation in the state of Yaracuy, Venezuela.

Several plants have been constructed in this hemisphere for processing the fruit for oil and kernels. Plans have been made to increase the acreage about 50 percent, although present plantings in the Western Hemisphere, when they reach bearing age, can supply the estimated emergency requirements of the United States for palm oil.

From 1935 to 1939, exports of palm oil from Africa (British, French, and Belgian Congo and mandated Cameroons,

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Togoland, and Liberia) averaged 274,200 tons annually, from Sumatra 213,700 tons, and from Malaya 47,500 tons—a total of more than a half-million tons. Much more of this oil is produced in Africa than is exported—the rest is consumed there. Because much of the wild fruit is not gathered, the total potential production is unknown. Recently there has been a tendency to grow the oil palm in plantations in Africa, as is done in Sumatra and Malaya.

Prewar imports of palm oil to the United States varied from about 97,000 tons (1934) to 187,000 tons (1937). During the war, imports dropped to about 550 tons, but have since risen to more than 41,000 tons (1949), principally from the Belgian Congo.

Palm kernels are generally processed in the importing countries. Before the war, 95 percent of the palm kernels entering world trade originated in French Africa and British Africa. It is estimated that prewar trade in palm kernels amounted to about 750,000 tons. Imports of palm kernels between 1939 and 1941 fluctuated from 650 tons (1929) to 32,000 tons (1936). They have not increased appreciably since the war and have generally been less than 15,000 tons annually. In 1949, only 4,500 tons of palm nuts and kernels were imported, but imports of babassu nuts and kernels, which yield an oil similar to palm kernel oil, exceeded 23,000 tons. Small quantities of palm kernel oil are also imported.

The kernel oil of the African oil palm, as well as the kernel oils of other oil-palms (babassu, tucum, and murumuru) are chemically like coconut oil and can be used interchangeably with it. Palm oil is, however, chemically different from coconut oil and the oils of the common annual oilseed plants (peanuts, cottonseed, soybeans), being intermediate between these two types. Palm oil is used largely in soaps, margarine, and vegetable shortening, in the manufacture of tin and terne plate, and in cold-rolled steel. Of the common vegetable oils, only palm is suited for use in the steel industry, and is, therefore, included on the list of critical and strategic materials.

• **Flax** — Linseed oil derived from the seed of the flax plant *(Linum usitatissimum)*, is used for food and industrial purposes. As a food fat, it finds use principally in India and the Soviet Union. In the past it was used in the form of cold-pressed oil, but in recent years some linseed oil has been hardened by hydrogenation, especially for consumption in the Soviet Union. In the United States, little linseed oil is eaten. During the war, linseed oil was hydrogenated in the United States and Canada and shipped to the Soviet Union. We use linseed oil primarily in the manufacture of paints, varnishes, linoleum, oilcloth, synthetic resins, printing inks, putty, and related products. Some is used in soaps and lubricating greases.

Flax is grown for seed in almost all Temperate Zone countries. The principal producers are Argentina, the Soviet Union, India, and the United States, in that order. The average annual prewar (1935-1939) production was approximately: Argentina, 1,668,000 tons; the Soviet Union, 827,000 tons; India, 507,000 tons; the United States, 308,000 tons.

Our production in the 1930's was small because of droughts. During and following the war, it increased markedly in response to demands for linseed oil to replace former imports and because of higher prices resulting from Government support programs. Between 1935 and 1950, domestic production of flaxseed fluctuated from about 549,000 tons (1939) to 1,527,000 tons (1948).

For many years the principal flaxseed-producing states have been Minnesota, North Dakota, and South Dakota. For some years, Montana was the fourth largest producer, but in recent years it has been superseded by California and since 1948 also by Texas.

International trade in flaxseed and linseed oil is relatively large. More than half of the world production, normally in the form of seed rather than oil, enters world trade. Before the war, Argentina exported 90 percent of its flaxseed (1.3 million tons or more annually), and India 50 percent. The Soviet Union generally exports little flaxseed. Following the loss of European markets at the beginning of the second World War, Argentina began intensive development of a domestic oilseed-processing industry and now exports linseed oil in preference to flaxseed; that is true also of that country's other oilseed crops.

Net imports of flaxseed by the United States were relatively large up to 1941. In 1937, imports exceeded 730,000 tons, but by 1942 they dropped to about 136,000 tons and, except for 1943, have continued to decline to 4,100 tons (1949).

The 1944-1948 average production of linseed oil was 623,000 tons, but was only 372,000 tons in 1949. Net imports or exports of linseed oil were never an important factor in the United States until 1939, when net exports amounted to 2,250 tons and increased steadily to

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104,500 tons in 1943. The United States became a net importer of linseed oil in 1945, when 16,500 more tons were imported than exported. Net imports increased to 83,500 tons in 1946, but fell to 2,000 tons in 1948 because of the large domestic production and carry-over of domestic seed.

• **Tung**—Tung, or Chinese wood, oil is obtained from two species of *Aleurites*, a genus of the spurge family. Both species, *A. fordii* and *A. montana*, are native to China, where they grow both wild and under cultivation. The trees are generally short-lived, about 30 years or so, but often begin bearing in 3 to 5 years, depending on the species, soil fertility, and climate. The kernels of the mature fruit contain about 50 percent oil.

The cultivation of tung trees and production of oil used to be confined to China, where it has been used since the twelfth century. Tung oil was introduced into the United States in 1869, but did not attain industrial importance until after 1900. Production in China before the last war amounted to more than 140,000 tons annually, more than half of which was exported. It was first in value of the Chinese exports in 1939. Imports to the United States were more than 48,000 tons in 1940, but during the war fell off almost entirely. They revived rapidly after the war and by 1948 amounted to nearly 67,000 tons, but have declined since then.

Tung trees began to be planted on a commercial scale about 1923 in the United States, first in Florida and later in Mississippi, Louisiana, Georgia, Alabama, and Texas. In 1949, our production of tung oil from domestic and imported nuts amounted to about 11,000 tons, the highest on record. It may be expected that domestic production will increase as greater numbers of new orchards reach bearing age.

Experiments were made in tung cultivation in South America during the 1920's. Commercial plantings followed, notably in Paraguay, Brazil, and Argentina. The largest plantings were in Argentina. Plantings in Paraguay amounted to 2 million trees in 1948, when 210,000 older trees were producing 4,400 tons of nuts and 550 tons of oil. Commercial plantings in Brazil began about 1930 and continued to expand throughout the following decade. Production of oil amounted to only 20 tons in 1942, but rose to 290 tons by 1946, when 40 percent of the estimated 3,840,000 trees were bearing. Production of oil from present plantings is expected eventually to be about 2,750 tons annually.

Small plantings were made in Argentina in 1928. By 1933 planting was widespread; some individual plantations have 100,000 trees. In 1940, the Argentine government encouraged further expansion, with a plan for planting 100,000 trees a year. The Argentine production of tung oil was reported to be 6,000 tons in 1948 and is expected to reach 30,000 tons by 1952; it is now in excess of Argentina's domestic needs and the excess for export will compete with oil from China.

The surplus tung oil in Latin America is finding a ready market in the United States. In 1948, imports from Brazil were approximately 737 tons and in 1949 8,243 tons were received from Argentina. In the same year 1,220 tons of tung nuts were imported. Currently nuts are being imported from Uraguay and Africa.

Tung oil is outstanding with respect to its fast rate of drying and the water resistance of its films. Only oiticica oil from Brazil, po-yoak oil of West Africa, and cacahuananche of Central America and Mexico are comparable with it in those respects. At one time (1921), 90 percent of the high-grade varnishes sold in the United States contained tung oil. Other uses of the oil are in the manufacture of electrical insulation, wallboard, caulking and sealing compounds, gaskets, and waterproofed fabrics. During and since the war, dehydrated castor oil has been substituted for many uses previously met by tung. On the other hand, the high price of domestic linseed oil during 1946 and 1947 led makers of paint and varnish to develop a cheaper and effective drying oil, especially for varnishes, by mixing soybean and tung oil.

• **Castor Seed**—We import large quantities of castor seed *(Ricinus communis)* for extraction of the oil. In recent years consumption of castor oil has been about 50,000 tons annually. Foremost uses include decorative and protective coatings (paints, varnishes, linoleum, oilcloth, printing inks), synthetic resins, hydraulic fluids, soaps, and lubricants. After sulfonation, it is used in many industries, including petroleum, textile, leather, artificial leather, and paper. It is the source of such special fatty acids as undecylenic and sebacic. Sebacic acid is used to make nylon, plasticizers, and special lubricating greases.

Castor oil is subjected to a dehydration process, in which a molecule of water is removed from ricinoleic acid, the principal fatty acid of castor oil. This reaction forms a second unsaturated, or double bond, so located in the molecule with respect to the double bond already present that it changes the oil from a relatively nondrying type to one that polymerizes under the influence of heat and dries rapidly. Because of this change, dehydrated castor oil behaves much like tung oil and can be substituted for it in the manufacture of many products. For some uses, such as interior white enamels, dehydrated castor oil is superior to tung because its films tend less to turn yellow.

Castor oil is also hydrogenated to convert the ricinoleic acid to monohydroxystearic acid. After saponification this acid is converted to the corresponding aluminum or lithium soaps (salts) which are used in manufacturing lubricating greases having a wide range of application.

Many attempts have been made to grow castors commercially in the United States. More than 350,000 bushels were produced in 1878 in Kansas. Smaller quantities were raised in Oklahoma between 1900 and 1910. Various attempts were made about the time of the first World War to grow castors in Florida. They were tried in Texas and Oklahoma during the last war. The yields were low, and the plant was not adapted to mechanical harvesting. The principal

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difficulties with castor are the tendency of the pod to open and drop its seed as it ripens, irregular ripening of the seed, tendency to cross-pollenize with uncultivated varieties, and its bushy and woody growth. Agronomists have been trying to develop varieties more suitable to the agricultural methods of the United States, but so far we have had to depend on imported seed from countries where hand labor is cheap and abundant.

Imports of castor seed have generally exceeded 50,000 tons annually since 1925. From 1935 to 1939, when dehydration processes were being developed, imports were about 100,000 tons a year. After the outbreak of war, imports again increased to a record 195,000 tons in 1941. The 1945-1949 imports of castor seed averaged 140,000 tons annually. The increased imports reflect the many critical uses to which castor oil is put.

India and Brazil are the foremost producers of castor seed, but the plant is found throughout the warm-climate countries. Up to about 1935, India was the largest producer of castor seed, but since that time it has been superseded by Brazil and the Soviet Union. Approximately 95 percent of the United States imports of the seed originated in Brazil, with small quantities from Haiti, Ecuador, Mexico, Argentina, Thailand, and British Malaya. Imports of castor oil have generally been small. The exception to this was 1943 when approximately 12,000 tons were imported.

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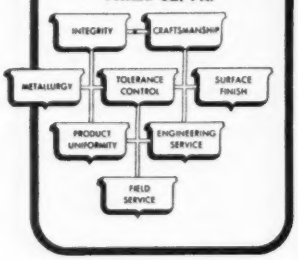

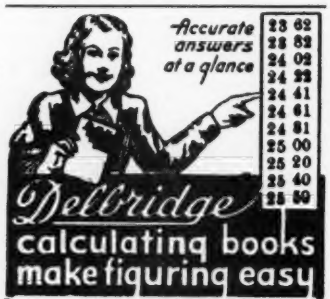

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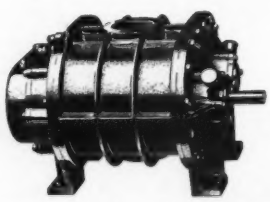

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Quality Grades of Oilseeds

Oilseeds are chemically very complex, and their quality and condition are determined by variety, soil, weather during growth and ripening, cultural practices, and the treatment they receive after harvesting. Occasionally an abnormal condition may arise, like prolonged and excessive rains at harvest or a premature severe frost, which changes greatly their normal characteristics. In the interest of fair trading, therefore, it has been necessary to establish quality grades that cover the whole range of probable variations, so that the value of any oilseed or derived product can be determined with reasonable accuracy.

• **Many Agencies Help Maintain Standards**—Grades or standards must be based on specific properties or characteristics that can be measured with practical speed and accuracy. Many organizations, governmental and private, may have as their principal activity the problem of devising and applying chemical, physical, and mechanical methods to the evaluation of various materials of commerce. Sometimes the organizations may also recommend or establish standards or specifications by which the various quality grades are defined. The promulgation of standards or grades for certain domestic oilseeds, for example, soybeans, is a function of the Grain Branch of the Production and Marketing Administration, U. S. Department of Agriculture. The most important single organization in developing and promulgating standards and trading rules for soybean products is the National Soybean Processors Association. For cottonseed products it is the National Cottonseed Products Association. For peanut products it is the Southeastern Peanut Association.

The American Oil Chemists' Society concerns itself with methods of analysis of vegetable oils and derived and related products, as well as with raw materials and byproducts of the oil mill. The Association of Official Agricultural Chemists, which has developed many methods for testing and analyzing foods and feedstuffs, has methods for the analysis of soybean flour and for soybean meal intended as a feedstuff. The New York Produce Exchange has trading rules for both crude and refined vegetable oils.

• **Others Have Important Part, Too** — Chemists and physicists have an important part in the development of the grades and standards for oilseeds and oilseed products and in the development of methods of assessing them. They must devise accurate, rapid, and inexpensive methods and change them to meet new uses.

The value of an oilseed and the demand for it in competition with other oilseeds depend on the quantity and quality of the oil and other components and on the ability of the processor to extract and convert the products into finished goods of the quality and price that the consumer wants. To these ends, trained technologists constantly devote their efforts. Every additional ounce of oil extracted from a ton of oilseed, every processing loss that can be cut by even a fraction, every new product and use that can be developed for the oil or any byproduct increases the value and demand for the seed.

• **Rapid Technological Advances** — During the present century, especially since the war, technological advances have been made at an ever-increasing pace.

More efficient processes of extracting vegetable oils have expanded the recovery of oil from the seed and new methods have reduced refining losses. The most important advance during the past 50 years was the discovery of means to change liquid oils to semisolid or plastic fats. More recent developments have made it possible to convert nondrying oils into drying oils.

The present production of soybeans in the United States strikingly illustrates the effect that technology can have on the agriculture and industry of a country. This production has been made possible to a very great extent by the development of improved methods of extraction, whereby the low oil content of the seed could be economically recovered. Improved methods of refining have made possible its widespread use in edible products (shortening, margarine, salad dressings, and mayonnaise); improvement in the drying qualities of the oil has made it more adaptable for use in paints, varnishes, synthetic resins, and other coating materials. The development of solvent extraction processes has made possible new outlets for the meal in many industrial and food uses. The recovery of such substances as lecithin from crude soybean oil, of sterols, vitamins, and antioxidants, and the development of uses and markets for these byproducts in many industries have added value to the seed produced by the farmer. If such developments continue, there will be further discoveries and new values for every domestic oilseed we now grow or will grow in the future.

Photo Credits: Page 19—Top: A. C. Dillman, Texas Flax Improvement Association; center: Mrs. J. G. Woodruff, associate botanist, Georgia Agricultural Experiment Station, Tifton; bottom: W. L. Burlison, University of Illinois Agricultural Experiment Station. Page 20—Bottom: A. Devaney, Inc. Page 21—Center: Los Angeles (Calif.) Chamber of Commerce.

Air Force-Cotton Film Prints Are Available

Completion of the new sound motion picture, "King Cotton Keeps 'Em Flying," which tells the story of cotton's vital importance to the nation's Air Force, has been announced by the National Cotton Council.

Produced in cooperation with the Air Training Command of the Air Force, the film is 13 minutes in length. It traces a navigation cadet through his training at Ellington Air Force Base at Houston, Texas, pointing up literally scores of major cotton applications by airmen and on military aircraft.

During the course of the narrative, the viewer is shown cotton uniforms, parachute packs, self-inflating life rafts, bombsight covers, ammunition, wheel covers, insulation, plastic bomber noses and dozens of other cottons essential to Air Force operations.

Prints of the film in 16 mm. size are available for showings before cotton groups, civic clubs, plant personnel and other audiences by writing to the National Cotton Council, P. O. Box 18, Memphis 1, Tenn.

Dr. Max A. McCall to Retire from USDA

Dr. Max A. McCall, assistant chief of USDA's Bureau of Plant Industry, Soils, and Agricultural Engineering, has requested voluntary retirement from government service on June 30, USDA has announced. He has served 36 years in federal service.

Developments in crop improvement that have come about during Dr. McCall's leadership in crop research are generally credited as being responsible for much of the recent increase in crop production in the U.S. In 1950, Dr. McCall was awarded USDA's Distinguished Service Award. He helped develop a sound working basis for cooperative research between federal and state experiment stations in which knowledge and physical resources of the cooperating agencies are pooled in a joint effort to solve problems of mutual concern.

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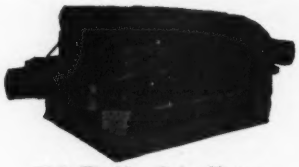

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Flaxseed Disappearance Is High, Stocks Are Low

An estimated 26,454,000 bushels of flaxseed were stored in all positions on April 1, according to reports assembled by USDA's Bureau of Agricultural Economics. This compares with April 1 stocks of 31,474,000 bushels in 1950, 29,328,000 bushels in 1949, and 18,588,000 in 1948. These four years comprise the entire series of available April 1 stocks estimates, assembled as a project under the Research and Marketing Act of 1946.

Farm stocks included in the current total were estimated at 7,066,000 bushels by the Crop Reporting Board, comparing with 10,200,00 bushels on Jan. 1. This indicates a movement from farms of 3,134,000 bushels, slightly more than usual for the January-March quarter.

Off-farm stocks included 11,774,000 bushels of commercial flaxseed at terminals, reported by the Production and Marketing Administration, compared with 15,026,000 on Jan. 1. Also, 7,614,000 bushels were at processing plants, interior mills, elevators and warehouses, compared with 13,018,000 on Jan. 1.

Disappearance of flaxseed in the January-March quarter of 1951 is indicated at 11,790,000 bushels, which is considerably more than in that quarter of any of the other three years of record. In the same period, the quantity processed is reported by the Bureau of the Census at 9,975,000 bushels. From the supply of 56,261,000 bushels on July 1, 1950, disappearance of nearly 30 million bushels is indicated by the current stocks. This compares with a total of 31,668,000 bushels reported processed in the same period.

Syria's Oilseed Outturn Increases in 1950

Production of vegetable oilseeds, excluding olives, during 1950 in Syria is estimated at approximately 80,000 short tons, an increase of over 50 percent from last year's production. This is accounted for by an increase in cottonseed production from 37,500 tons in 1949 to 66,000 in 1950.

Flaxseed production of 990 tons (35,400 bushels) was more than double the previous year. Output of peanuts was estimated at 770 tons against 660 in 1949. Other oilseeds produced in 1950 were sesame seed, 6,600 tons; castor beans, 275; sunflower seed, 110; apricot seed, 2,750; and hempseed, 2,200 tons.

About 5,700 tons of vegetable oils were produced in 1950, of which 4,950 tons consisted of cottonseed oil. Exports were relatively small during the year and the bulk of the oil crushed was consumed locally. An estimated 1,250 tons of vegetable oils were imported for use in soap manufacturing. Oilseed imports amounted to 787 tons of cottonseed, 460 tons of sesame seed, and 2,170 tons of other oilseeds.

The only sizeable stocks in Syria are cottonseed stocks, estimated at 33,000 tons at present. Exports of 14,300 tons of cottonseed have been reported during the first two months of 1951 and further large exports are expected during 1951.

A large increase in cotton plantings this year will result in a greatly increased cottonseed production in 1951. The increased acreage devoted to cotton also will bring about smaller plantings of other oilseed crops.

Council Ups Estimate of 1950 Insect Damage

Insects slashed the 1950 cotton yield almost 27 percent in 13 southern states —the greatest reduction in 29 years and second highest on record—the National Cotton Council pointed out last week.

Losses in these 13 states amounted to 26.9 percent, the Council noted, referring to the final report on cotton and cottonseed production in 1950, issued by the Bureau of Agricultural Economics, USDA.

The toll levied on cotton by the boll weevil and other pests in 1950 has been exceeded only once and that was in 1921 when the full yield was reduced an estimated 35.5 percent, the Council added.

The Council estimates the dollar value of cotton destroyed in 1950 at $907,884,000—highest in history. This exceeds by more than $300,000,000 the Council's preliminary unofficial estimate of last November.

In 1949 insects destroyed an estimated 3,825,871 bales of cotton and 1,576,000 tons of cottonseed valued at $617,874,000. In 1950 it is estimated 3,892,682 bales and 1,591,000 tons of cottonseed were lost but gross total dollar damage ($907,884,000) was much greater due to an increase in the price of both cotton and seed.

Percentage the full yield was reduced in 13 southern states in the "Boll Weevil Belt" was as follows: Missouri, seven; Virginia, 64; North Carolina, 56; South Carolina, 34; Georgia, 29; Florida, 25; Tennessee, 21; Alabama, 35; Mississippi, 25; Arkansas, 29; Louisiana, 30; Oklahoma, 41; Texas, 19.

Estimated value of cotton and cottonseed destroyed by insects in these states in 1950 was as follows: Missouri, $7,217,000; Virginia, $2,704,000; North Carolina, $78,273,000; South Carolina, $60,372,000; Georgia, $54,197,000; Florida, $1,150,000; Tennessee, $30,878,000; Alabama, $88,097,000; Mississippi, $121,062,000; Arkansas, $124,233,000; Louisiana, $52,093,000; Oklahoma, $55,624,000; Texas, $221,103,000.

Cotton insect damage in 1950 was abnormally high, the Council pointed out, because: (1) a large number of boll weevils entered hibernation in the fall of 1949 and lived through the mild winter; (2) the number of live weevils emerging in the spring of 1950 was at a record level; (3) frequent rains and below-average temperatures hindered the poisoning schedule; (4) maturity of the crop was delayed and heavy weevil damage continued even on grown bolls.

Although losses in 1950 were staggering, the Council added, it should be noted that damage would have been much greater had not the states carried out an intensified cotton insect control program. The Mississippi Agricultural Extension Service estimated that farmers in that state saved more than 100 million dollars through the proper use of insecticides. Sound insect control programs netted farmers substantial dividends in other Cotton Belt states while those who did not follow a recommended schedule suffered severe losses.

Ginners to Get Yearbook

In a few days ginners in the Carolinas and Virginia will receive a copy of The Carolinas Ginners Annual Review, first yearbook to be published by the Carolinas Ginners Association.

Ecuador's Vegetable Oil Production Is Up

Ecuador's production of vegetable oils in 1950 is estimated at 3,600 short tons as compared with 3,040 tons in 1949. Palm oil production of 1,795 tons made up almost half of the total output for the year. Other principal vegetable oils produced in 1950 were: cottonseed oil, 795 tons; barbados nut oil, 315; castor oil, 280; peanut oil, 225; and coconut oil, 110.

Production of vegetable shortening by the two Ecuadoran producers is estimated at 680 tons, a drop from the 950 tons produced in 1949. Imports of hog lard in 1950 were probably responsible for this decrease.

The chief oilseed export in 1950 was 4,600 tons of castor beans, almost double the 2,500 tons shipped in 1949. No oils were exported.

Imports of oils, fats and waxes and their products were 2,560 tons, little changed from 2,400 tons in 1949.

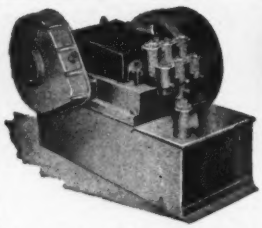
Dr. Greenfield Is Named Staley Vice-President

Dr. R. E. Greenfield, general superintendent of A. E. Staley Manufacturing Co., Decatur, Ill., oil mill operator, has been elected vice-president in charge of manufacturing operations. He has supervised most of the firm's recently completed $20,000,000 modernization program.

FACT...

for Advertisers:

The editorial leadership of this publication is measured by the fact that the National Cottonseed Products Association, the National Cotton Ginners Association and *every* state ginners association have recognized it as their official magazine.



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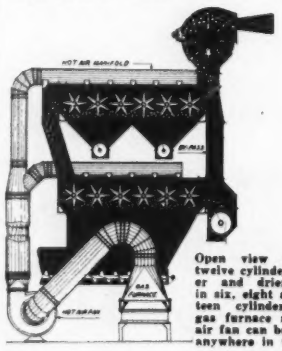
STACY COTTON CLEANER AND DRIER



Open view of our twelve cylinder cleaner and drier. Also in six, eight and sixteen cylinders. The gas furnace and hot air fan can be placed anywhere in the gin.

A careful study of the open view cut at the left will convince any ginner of the effectiveness of the Stacy Cotton Cleaning System and Drier. Note the hot air is blown through the cotton by a series of nozzles (similar to the air blast nozzles on a gin stand), forcing the dirt, leaf trash, and stems through the screen. The moist air does not follow the cotton.

The cleaner is used every day you gin. When a wet bale comes in—turn on the heat. There is no dead investment. We furnish Heaters for natural gas, butane and propane.

Closed view of our eight cylinder cleaner and drier.

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The STACY COMPANY, Inc.

3704 Taylor Street Dallas 1, Texas

1951-Crop Upland Cotton Loan Program Details

The U.S. Department of Agriculture announced details of the loan program for 1951-crop upland cotton last week.

Secretary of Agriculture Charles F. Brannan announced on Nov. 24, 1950, that 1951-crop cotton would be supported at 90 percent of parity, and on Feb. 14, 1951, he set the loan rate at 29.68 cents per pound, basis Middling ⅞-inch cotton, or 90 percent of parity at the beginning of the marketing year Aug. 1, whichever is the higher. The final loan rate will be announced about Aug. 1.

Last week's announcement covers the details of the program and provides that CCC will make interim price support loans available to eligible producers in the early harvesting areas on 1951-crop upland cotton prior to Aug. 1 at 29.68 cents per pound, basis Middling ⅞-inch cotton at average location. Premiums and discounts have been determined in the same manner as in 1950, on the basis of actual market differences for the various grades and staples.

The basic loan rate for 1951-crop cotton will apply to Middling ⅞-inch cotton at average location. The loans will be available through April 30, 1952, and will mature July 31, 1952, or earlier upon demand. If the loans are not repaid prior to maturity CCC may take over the cotton from producers, sell the cotton to others, or pool the cotton for producers' account.

Loans will be available on cotton stored in warehouses approved by CCC and in farm storage structures approved by PMA county committees. As under the 1950 program, approved lending agencies may make advance loans to producers prior to the time loan values can be determined.

Copra Production in Fiji Islands Drops

Production of copra in the Fiji Islands during 1950 is estimated at 28,000 long tons, a decrease of over 4,000 tons from 1949. Copra production during 1950, even more than in 1949, felt the effects of the hurricane which passed through the eastern section of the colony in December 1948. About 60 percent of the copra is produced by Fijians working on communally-owned lands, and the remaining 40 percent on large estates employing Fijian or Indian labor, or on small family holdings.

The colony's two oil mills, both at Suva, milled an estimated 18,000 tons of copra in 1950, from which about 11,000 tons of coconut oil and 6,600 tons of coconut meal were produced. Local consumption in soap, margarine and cooking oils took 1,000 tons of the oil, and about 1,500 tons of coconut meal remained in Fiji for the feeding of livestock.

For 1951 the Fiji Department of Agriculture has set as a goal the planting of 15,000 acres of new trees and hopes to encourage the Fijians to make similar plantings each year over the next 10-year period. If hurricanes do not affect the 1951 crop, it is anticipated that it will total possibly 32,000 tons.

• Tests conducted by the Texas Agricultural Experiment Station for the past three years indicate that cotton can be harvested efficiently with mechanical pickers and strippers.

CALENDAR

Conventions • Meetings • Events

• May 29—Annual meeting, Louisiana section, Louisiana - Mississippi Cotton Ginners Association. City Park Auditorium, Alexandria, La. Gordon W. Marks, P. O. Box 1757, Jackson 114, Miss., secretary.

• May 30-31-June 1—National Oil Mill Superintendents Association annual meeting. Plaza Hotel, San Antonio, Texas. H. E. Wilson, Wharton, Texas, secretary-treasurer.

• June 3-4-5—Joint convention North Carolina Cottonseed Crushers Association and South Carolina Cotton Seed Crushers' Association. The Cavalier, Virginia Beach, Va. Mrs. M. U. Hogue, 612 Lawyers Bldg., Raleigh, secretary of North Carolina association; Mrs. Durrett L. Williams, 609 Palmetto Bldg., Columbia, secretary of South Carolina association.

• June 4-5—Arkansas-Missouri Ginners' Association annual convention. Arlington Hotel, Hot Springs, Ark. J. W. Karsten, Jr., Kennett, Mo., executive vice-president-secretary-treasurer.

• June 4-5 — Oklahoma Cottonseed Crushers' Association annual convention. Lake Murray Lodge, Ardmore, Okla. R. M. Lucas, Chickasha Cotton Oil Co., Chickasha, temporary acting secretary.

• June 10-11-12 — Texas Cottonseed Crushers' Association annual convention. Shamrock Hotel, Houston, Texas. Jack Whetstone, 624 Wilson Bldg., Dallas 1, Texas, secretary.

• June 14-15 — Mississippi Cottonseed Crushers Association annual convention. Hotel Buena Vista, Biloxi, Miss. J. A. Rogers, P. O. Box 3581, West Jackson Sta., Jackson, Miss., secretary.

• June 18-19 — Joint convention Alabama-Florida Cottonseed Products Association and Georgia Cottonseed Crushers' Association. San Carlos Hotel, Pensacola, Fla. T. R. Cain, Professional Center Bldg., Montgomery 4, Ala., secretary of Alabama-Florida association; J. E. Moses, 318 Grand Theatre Bldg., Atlanta 3, secretary of Georgia association.

• June 18-19—New Mexico Cotton Ginners Association annual convention. Navajo Lodge, Ruidoso, N. M. Mrs. Flora R. Lawrence, Loving, N. M., secretary-treasurer.

• June 20-21-22 — Tri-States Cottonseed Oil Mill Superintendents' Association annual convention. Biltmore Hotel, Atlanta, Ga. L. E. Roberts, 998 Kansas, Memphis 5, Tenn., secretary-treasurer.

• July 26-27-28 — Annual Cotton Research Congress. Memorial Student Center, Texas A. & M. College, College Station. Sponsored by Statewide Cotton Committee of Texas, Burris C. Jackson, Hillsboro, chairman.

• Sept. 6-7-8—American Soybean Association annual convention. Hotel Fort Des Moines, Des Moines, Iowa. George M. Strayer, Hudson, Iowa, secretary-treasurer.

• November 8-9—Fifth Annual Beltwide Cotton Mechanization Conference, Chickasha, Okla. For information, write National Cotton Council, P. O. Box 18, Memphis 1, Tenn., sponsor of the conference.

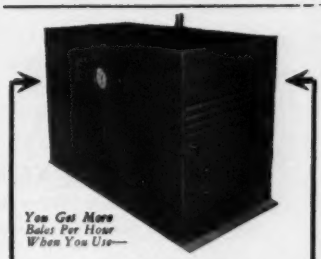
• March 30, 1952—National Cotton Ginners' Association annual meeting. Baker Hotel, Dallas, Texas. Carl Trice Williams, P. O. Box 369, Jackson, Tenn., secretary-treasurer.

• March 31, April 1-2, 1952 — Texas Cotton Ginners' Association annual convention. Fair Park, Dallas, Texas. Jay C. Stilley, 109 North Second Ave., Dallas 1, Texas, executive vice-president. For exhibit space, write R. Haughton, President Gin Machinery & Supply Assn., Inc., P. O. Box 444, 3116 Commerce St., Dallas 1, Texas.

Cen-Tennial Ginnery Rebuilds Office

The office building of the Cen-Tennial Ginnery at Bennettsville, S. C., was destroyed by fire last December, but soon there will be a new one for Manager J. F. (Skeet) McLaurin and his office assistants.

The new building, nearing completion, will have a cotton buying room and private offices on the second floor. Mr. McLaurin, who is vice-president of the National Cotton Ginners' Association and president of the Carolinas Ginners Association, plans to install a water cooler and soft drink dispenser for the convenience of his customers.



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For better and more economical operation of your cotton gin presses. Rotary type pump provides smooth, fast performance. Push button or simple lever control valve saves operator time. Delivered and installed by competent service men. Write:

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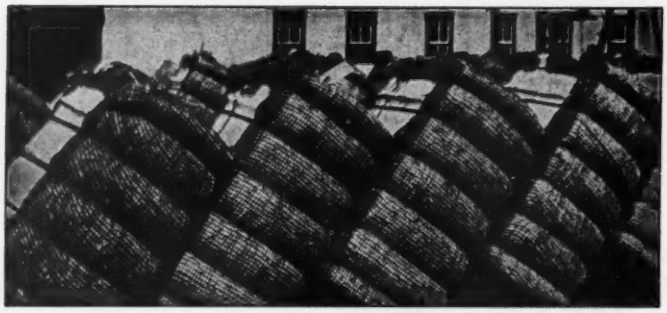

Covered with Carolina's Standard 2-lb. Jute Bagging, cut of bales, above, is actual photograph of same before cutting sample holes.

Cotton so covered is subjected to less weather damage than either closely woven cotton, Burlap, or Sugar Bag Cloth due to open weave admitting sunlight and air, and looks better than either after sample holes are cut, and is unquestionably better for the purpose.

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★ Black & Decker Tools
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Laugh IT OFF

In the early days an old-timer was elected justice of the peace. As was usual he knew no law. When cases were brought before him he would take out, with a flourish, a fine looking book, inside of which he had fastened a Sears-Roebuck catalog. One day he thumbed the pages, put his finger on a point and said, "You are fined $4.98."

The defendant got up to protest. "Sit down!" his lawyer cautioned, pulling at his coat-tail. "You're just plain lucky he turned to Pants instead of Pianos."

• • •

The man who dropped his watch on the sidewalk took it into a repair shop. In explanation of the condition of the watch, he said: "I am to blame, of course, I shouldn't have dropped it."

"You couldn't help that," remarked the jeweler, "the mistake you made was in picking it up."

• • •

American Tourist: "Where am I at?"

Englishman: "My dear fellow, you use terrible grammar. You should say: 'Where is my 'at?'"

• • •

Teacher: "Surely you know what the word mirror means, Tommy. After you've washed, what do you look at to see if your face is clean?"

Tommy: "The towel."

• • •

Two fishermen sitting on a bridge, their lines in the water, made a bet as to who could catch the first fish. One got a bite and became so excited that he fell off the bridge.

"Oh, well," said the other, "if you're going to dive for them, the bet's off!"

• • •

Irate Father: "Why were you kissing my daughter in that corner last night?"

Dubious Danny: "Now that I've seen her in the daylight, I sort of wonder myself."

• • •

Easing the engine to a stop at a water tank, the old engineer briefed his green young fireman. The fireman climbed to the tender, as per instructions, and managed to bring the spout down all right. But somehow his foot tangled in the chain and he floundered right into the tank. The engineer regarded him and his plight with a jaundiced eye.

"Just fill the tank with water, Sonny," he drawled. "No need to tramp it down."

• • •

"What was the hardest thing you learned at the university?" asked the proud papa.

"How to open bottles with a quarter," answered the son.

• • •

The drunk tottered along, now on the street, now on the curb. "Gad, what a long stairway," he muttered.

• • •

The new minister was calling upon the members of his flock. "What a cute little girl!" he gallantly remarked, upon viewing one of the children. "And this sturdy little urchin in the bib belongs to the contrary sex, I presume?"

"Oh, yes," said the mother, "she's a girl, too."

Is Your Gin Ready . . .

. . . to give your customers good service?

. . . to operate profitably for you without costly breakdowns?

New Gullett 90 Saw Gins for maximum capacity and smooth sample. Available with dynamic-pneumatic moting and lint cleaning attachment—also with grid bar and suction manifold for greatly accelerated moting and cleaning.

The Gullett 14 ft. Master Extractor with center feed will enable you to handle the rough cotton and give your customers better grades.

Drier-Cleaner combination is a very simple installation that requires little expense and can be installed quickly.

Extractor Feeders—The GULLETT "SUPER 100" with three extracting saws and three reclaimer saws gives maximum cleaning and extraction over the gin stands.

The Model 99 Separator—Can be easily installed in any gin plant. Designed for use above pressure drying systems. Has great capacity and the very minimum of working parts. No packing to replace. Flights on vacuum drum are made of special material to give the maximum service on rough cotton and withstand high temperatures. Users all over the cotton belt tell us this is the finest separator ever built.

Wire or telephone the office nearest you for a sales-engineer to assist you with your problem. It is possible that we will be able to handle your orders for reasonably prompt shipment on some machines.

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Field Tested

90 Saw Split Rib Gin

with

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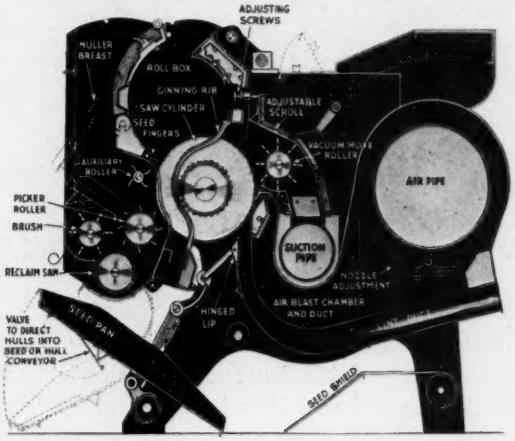
and

Reclaimer Saw

for

Greater Capacity,

Smoother Sample



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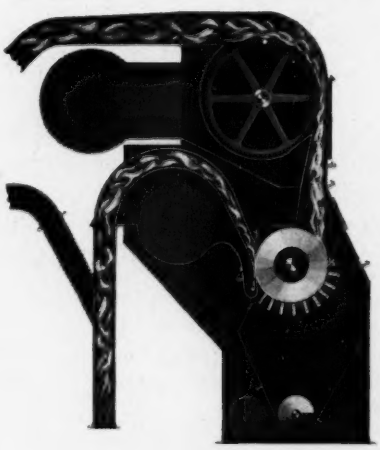

Lint Cleaners

IT WILL PAY YOU to investigate this new addition to the Ginning System as applied to YOUR Plant.

This Lint Cleaner uses LINE FLOW AIR WASH cleaning process, in addition to oscillating Saws and smooth rigid Grids. This combination effectively removes motes, shale and leaf trash, smooths lint, improves color, and greatly improves the sample. Better grades will secure you

MORE GINNING AND MORE PROFITS

These machines can be supplied with or without By-Pass Valves, and used with either our Up or Down Draft Gins.

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